



The Victoria  
University of Manchester.

---

LIBRARY EXCHANGE.

---

WITH THE COMPLIMENTS OF THE UNIVERSITY COUNCIL.

---

Acknowledgments and publications sent in exchange should  
be addressed to

THE LIBRARIAN,

THE UNIVERSITY,

MANCHESTER.





PUBLICATIONS OF THE UNIVERSITY OF MANCHESTER

EDUCATIONAL SERIES

No. V.

*Outlines of Education Courses*  
IN  
*Manchester University*



SHERRATT & HUGHES

Publishers to the Victoria University of Manchester

Manchester: 34 Cross Street

London: 33 Soho Square, W.

Agents for the United States

LONGMANS, GREEN & CO.

443-449 Fourth Avenue, New York

Outlines of  
Education Courses  
in  
Manchester University

MANCHESTER  
AT THE UNIVERSITY PRESS  
1911

UNIVERSITY OF MANCHESTER PUBLICATIONS  
No. LXI.

## INTRODUCTORY NOTE.

THE following syllabuses have been prepared to assist the lecture and demonstration courses given in the Department of Education and are printed for the use of students.

• Each of the syllabuses surveys the whole group of topics embraced under the title, but in actual delivery one or other of the Sections or Chapters may be omitted as the needs of students may make necessary.

The University Press has undertaken the publication, and the volume is thus available for teachers and students not connected with the Department of Education.

At the same time the authors do not present these syllabuses as in any way a complete exposition of the subject. Syllabuses of this nature can only be adequately understood by those who listen to the lectures as delivered. But as it has been found convenient to bring the material together in book form it will be a pleasure to the authors if the scheme of instruction in Education as here outlined is found of interest to those who are at work in the same field elsewhere, and it will be an additional gratification if as a result of publication they receive criticism and advice from confrères.

A few lines are added in an Appendix for the guidance of students and visitors in making use of the Demonstration School, which has recently been reorganised so as to fulfil its purpose with greater completeness.

• Further information as to this School and as to the educational appointments connected therewith for the study of Education may be gained from the Prospectus of the Department of Education.



## CONTENTS.

---

### I. SYLLABUS OF A COURSE ON THE HISTORY OF EDUCATION IN ENGLAND, 1800—1911

(Professor SADLER.)

PAGE

1. The Effects of the Industrial Revolution, of Wesleyanism and the Evangelical Movement, and of the French Revolution upon English Education - - -	1
2. The Beginnings of State Aid to English Elementary Education - - - - -	4
3. Education under the Poor Law - - - - -	11
4. Robert Owen - - - - -	16
5. The Educational Effects of the Factory Acts and Public Health Acts - - - - -	19
6. Popular Education for Adults; Mechanics' Institutes; Working Men's Colleges; Foundation of the Science and Art Department - - - - -	26
7. Obligation to Attend School - - - - -	28
8. Thomas Arnold, Headmaster of Rugby - - - - -	34
9. The Educational Endowments of Secondary Schools: the Charity Commission - - - - -	39
10. The Reform of Secondary Education, 1861—1869 -	42
11. The Struggle for Elementary Education, 1847—1870	50
12. The Elementary Education Acts, 1870—1880, and the Growth of Secondary Education during the decade - - - - -	54
13. Development of Elementary Education, 1880—1895 -	61
14. Development of Secondary Education, 1880—1895 -	65
15. The Education of Girls and Women - - - - -	71
16. The Influence of Science in English Education - -	79
17. The Period of Administrative Transition, 1895—1902	84

	PAGE
18. The Education Act, 1902, and its Effects on Elementary and Secondary Education - - -	86
19. Education Acts, Bills, and Administrative Re- organisation since 1902 - - - - -	92
20. The Influence of Economic Thought in English Education - - - - -	98
21. John Ruskin - - - - -	103
22. The Work of the Central Education Authority - -	107
23. The Work of the Local Education Authority - -	109
24. The Trend of Educational Thought - - - -	110
II. A SYSTEMATIC REVIEW OF THE PRINCIPLES OF EDUCATION. (Professor FINDLAY) - - -	112
III. LANDMARKS IN THE HISTORY OF EDUCATION WITH SPECIAL REFERENCE TO THE EDUCA- TION OF YOUNG CHILDREN. (Miss CAROLINE HERFORD) - - - - -	153
IV. THE MENTAL AND PHYSICAL LIFE OF SCHOOL CHILDREN. (Dr. SANDIFORD, Miss RANKINE BROWN, Miss M. A. FOUNTAIN) - - - -	165
APPENDIX. GENERAL DIRECTIONS FOR STUDENTS WORKING IN THE FIELDEN SCHOOL - - -	185

## **SYLLABUS OF A COURSE ON THE HISTORY OF EDUCATION IN ENGLAND, 1800-1911.**

**The Effects of the Industrial Revolution, of  
Wesleyanism and the Evangelical Movement,  
and of the French Revolution upon English  
Education.**

### **(i.) THE INDUSTRIAL REVOLUTION.**

The Industrial Revolution (accompanied by rapid increase in population and by improvements in communication which increased the mobility of labour) over-taxed the older agencies for elementary instruction; caused educational destitution in the new factory districts; rendered the old forms of local government obsolete; and produced among the energetic a keen demand for facilities for self-education. It fomented political discussion and the desire for social and educational reform. It brought into the north of England many Scotchmen and natives of the border counties who knew the benefits of popular education and realised the educational backwardness of industrial and agricultural England. The Industrial Revolution had a double effect on English educational thought: (a) it stimulated the belief in self-help and voluntary effort for social welfare (the rapid rise of men of vigour to wealth and political influence showed that existing conditions afforded much opportunity for individual effort and deterred many from supporting plans of national education which might strengthen the then existing class organisation of society); and (b) by aggregating population and by the organisation of large factory communities, it directed thought to the possibilities of collective action, aided by Government, for social and educational welfare. As the vestiges of mediæval regula-



tion were swept away, the civic conscience was moved to discover some effective substitute adjusted to the new conditions. The writings of Thomas Hodgskin (1787--1869) illustrate the first point of view; those of Robert Owen (1771--1858), the second.

### (ii.) WESLEYANISM AND THE EVANGELICAL MOVEMENT.\*

This religious revival, accompanied by a deepened sense of the spiritual needs and claims of the individual, was led (1) by John Wesley (1703--1791) and George Whitefield (1714--1770); and (2) somewhat later and more strictly within the confines of the Church of England, by John Newton (1725--1807), Thomas Scott (1747--1821), Joseph Milner (1744--1797), and Henry Venn (1725--1797). In its earlier stages under Wesley it derived some educational ideals from German pietism, ultimately from A. H. Francke of Halle and directly from the Moravians. This led Wesley to make schools, both elementary and secondary, a part of his connexional organisation. The Evangelical Movement in its later stages became increasingly suspicious of the disintegrating influences of rationalism, then permeating higher intellectual studies, and showed itself therefore disinclined for any comprehensive organisation of higher schools. It retained, however, a strong sense of duty towards the educationally destitute poor (partly through the influence of the philanthropic ideals of the early eighteenth century, partly from a desire that all should be able to read the Bible). Hence its zeal for Sunday schools and for elementary day schools upon a parochial or interdenominational basis. Through William Cowper and Hannah More it called attention to the deadness of the religious life in the endowed boarding schools.

### (iii.) THE FRENCH REVOLUTION.

French Radical thought had a strong influence in English education, both before and after the Revolution of 1789. Rousseau's *Emile* (published 1762) and La

Chalotais' *Essai d'Éducation Nationale* (published 1763) were widely read. Adam Smith adopted the view of Turgot that the instruction of the masses of the people was expedient for the safety of the State. Set forth in the *Wealth of Nations* (published 1776), this view won the adhesion of great numbers of the more liberal-minded among English statesmen and country gentlemen. The educational example of New England also carried weight. After the outbreak of the Revolution, Thomas Paine (1739—1809), in the *Rights of Man* (published 1790—92), popularised the idea of universal elementary education aided by the State. Washington's *Farewell Address* emphasised the necessity of popular education as a basis of democratic government.

The political events of the French Revolution had a threefold influence on English education: (a) They inspired many Radical thinkers, especially among the working-men, with enthusiasm for education as a means to political enlightenment; (b) they confirmed among the landed classes and among the members of religious bodies a fear of popular education as likely to produce political and social upheaval; and (c) by the destruction of old educational institutions in France, they roused the English Universities and religious bodies to the need of internal reform. The dominant influences in French thought (1) were adverse to ecclesiastical control in education, (2) favoured equality of opportunity of entrance into the public service, (3) claimed elementary education as part of the political right of every citizen, and (4) tended towards the bureaucratic control of all education by the central government.

#### REFERENCES.

- Report of the Royal Commission on the University of Oxford, 1852.  
 Report of the Royal Commission on the University of Cambridge, 1852.  
 William Cowper. *Tirocinium*.  
 Davis. *History of Charterhouse* (London: G. Bell & Co.).  
 Joseph Lancaster. *Improvements in Education as it respects the Industrious Classes of the Community* (London: Darton & Harvey, 1805).

- David Salmon. *Joseph Lancaster* (Longmans, 1904).
- Graham Wallas. *Life of Francis Place* (Longmans).
- Educational Record* (British and Foreign School Society), Feb. and June, 1903; Feb. and June, 1905; Oct. 1906; June, 1907.
- Robert Southey. *Life of Dr. Andrew Bell*.
- Robert Southey. *Essays Moral and Political*, vol. i., pages 111-12, 149; vol. ii., pages 25-26, 134 ff.
- Archdeacon Churton. *Memoir of Joshua Watson* (Parker, 1871).
- Quarterly Review*, September, 1812.
- Adam Smith. *Wealth of Nations*, book v., chapter i., arts. ii. and iii.
- Thomas Paine. *The Rights of Man*, part i., 1791; part ii., 1792.
- Wesley's *Journal*.
- Sir J. Stephen. *Essays in Ecclesiastical Biography*, vol. ii., "The Evangelical Succession."
- Arnold Toynbee. *Lectures on the Industrial Revolution in England* (Rivingtons).
- Abbey and Overton. *The English Church in the Eighteenth Century*.
- J. H. Overton. *The English Church in the Nineteenth Century, 1800-1833*.
- Leslie Stephen. *The English Utilitarians*, vol. i., pages 12-137 (London: Duckworth, 1900).
- M. E. Sadler. *Continuation Schools in England and Elsewhere* (Manchester University Press, 1907), ch. i.

## The Beginnings of State Aid to English Elementary Education.

1. English educational reformers first inclined to the view that the cost of elementary education (each parish being required to provide a school) should be borne by local rates eked out by school fees. In this they followed the precedents of Connecticut (1650), Massachusetts (1692), and Scotland (1696). Parochial rating was the financial basis of the educational bills of Pitt (1797) and Whitbread (1807). This plan of parish rating for education proved impossible owing to Nonconformist opposition to a form of local educational administration which would presuppose the dominant influence of the Church of England.

2. When their first plan failed, English reformers endeavoured to make old endowments available for elementary education. Inquiry was first necessary, and

Henry Brougham (1778—1868) secured the appointment, in 1818, of a Royal Commission to inquire into Educational Charities in England and Wales. In 1820, Brougham introduced an Education Bill which proposed Parliamentary subsidy for elementary education and the application of old endowments as a further source of income. The Commissioners on Educational Charities continued their labours till 1837. The inquiry disclosed serious abuses and automatically produced proper application of many funds which had been diverted illegally from educational purposes. But a permanent Board of Commissioners to superintend charities was needed, and this was not recommended by a Parliamentary Committee till 1835, or constituted till 1853.

3. Reformers were consequently thrown back upon the plan of State subsidies from central funds. In 1818 Parliament voted £1,000,000, and in 1824 £500,000, in aid of Church building, with a view to relieving the spiritual destitution of London and the large towns. This showed a new tendency towards State aid to works of social welfare. But fear lest State interference might follow State subsidy deterred many from advocating an extension of the church building-grant precedent to elementary schools. Nonconformists would justly have objected to State aid being given exclusively to Church schools, and many Churchmen, regarding national education as a prerogative of the Established Church, were reluctant that the State should recognise schools of a non-denominational character.

4. Government began to experiment in Ireland with State aid to elementary education. From 1814-1828 it subsidised the Society for Promoting the Education of the Poor in Ireland (the "Kildare Place Society"), which had been founded in 1811 to promote and support elementary schools in which the Bible was read without note or comment, but in which no catechisms or controversial books might be used. In 1819, Parliament empowered the Lord-Lieutenant of Ireland to make grants from the Consolidated Fund in aid of schools established by volun-

tary subscriptions. These grants were administered by three unpaid commissioners, and might be paid to schools connected with any denomination. In 1831 (Catholic Emancipation having been passed in 1829) the House of Commons voted £30,000 "to enable the Lord-Lieutenant of Ireland to assist in the education of the people." The money was found by withdrawing educational grants from the Kildare Place Society and from the Society for Discountenancing Vice. The Government plan for Irish education (suggested to them by Thomas Wyse) set up an unpaid board of seven members (three being members of the Established Church, two Roman Catholics, one a Presbyterian, and one a Unitarian). The aided schools might be denominational in management, but no pupil was required to receive religious instruction contrary to the conviction of its parents, the compulsory part of the curriculum consisting of "combined literary and moral instruction." The Government hoped that this plan, if successful in Ireland, would form a working model for English imitation.

5. In 1833 (the Reform Act having been passed in 1832) the public demand for State aid to education became insistent. In March, Lord Brougham announced his abandonment of the principle of compulsory provision of schools, in view of the success of voluntary effort since 1820. In opposition to Lord Brougham's changed views, John Arthur Roebuck (1801—1879), M.P. for Bath, moved, in July, in the House of Commons, "that the House, deeply impressed with the necessity for a due education of the people at large, and believing that to this end the aid and care of the State are absolutely needed, will, early during the next session of Parliament, proceed to devise a means for the universal and national education of the whole people." Roebuck's plan of national education was the most comprehensive of any that had been submitted to Parliament. He would require compulsory attendance at school throughout the United Kingdom of every child from 6 to 12 years of age, and would set up four classes of State schools, viz., infant schools, schools of industry,

training schools for teachers, and evening schools in towns for adults. He suggested that the country should be divided into school districts, in each of which the voters would elect a school committee. The central control of education was to be in the hands of a member of the Cabinet. He adduced the success of compulsory education in Prussia and Saxony and the educational reforms adopted by France in 1833 as arguments in support of his case. Public opinion was evidently ripe for action. Leading statesmen, however (Sir Robert Peel, Lord Althorp, and Daniel O'Connell), were alarmed by Roebuck's scheme. In August, 1833, the Government carried by fifty to twenty-six votes a resolution "that a sum, not exceeding £20,000, be granted to His Majesty, to be issued in aid of private subscriptions for the erection of school-houses for the education of the children of the poorer classes in Great Britain, to the 31st day of March, 1834; and that the said sum be issued and paid without any fee or other deduction whatsoever." This was the first grant by Parliament in aid of elementary education in England. It was confined to aiding the erection of school buildings and was assigned by the Treasury on the recommendation of the National Society and the British and Foreign School Society respectively, subject to the condition of half the cost of the building of new school-houses being met by voluntary contributions. Preference was given to applications from large cities and towns and to schools intended to accommodate not less than 400 scholars.

The basis of distribution of the annual grant (supplemented by an additional £10,000 in 1834 and 1836—1838 for Scotland) was unfavourable to poor and thinly populated districts, as preference was given to places which undertook to bear the largest proportion of the expense. In 1835 Parliament voted £10,000 for the establishment of a State Training College for teachers, with model schools attached. In the model schools, religious instruction was to be divided into general (*i.e.*, undenominational) and special (denominational), the latter being entrusted to licensed ministers representing the different religions

bores. This plan (believed to foreshadow an intention on the part of Lord Melbourne's Government to place the training of teachers under the exclusive control of the State and to give preferential aid and recognition to undenominational teaching in all State-aided schools) was strongly opposed by the Church of England, the Church of Scotland and the Wesleyan Methodists, and withdrawn. It is noticeable that in contemporary accounts of the controversy no mention is made of the opposition of Roman Catholics, whose numbers and political influence were then relatively small.

In 1836 Parliament voted £1,500 for a Normal School of Design under the direction of the Board of Trade. This was the nucleus of the Science and Art Department.

In 1838 a proposal to create a central Board of Education was negatived in the House of Commons without a division.

In 1839 the Crown, on the advice of the Government, appointed by Order in Council a special Committee of the Privy Council (on the analogy of the Committee of Council on Trade) "for the consideration of all matters affecting the education of the people" and "to superintend the application of any sums voted by Parliament for the purpose of promoting public education." Thus a central administrative authority for public education was established by Royal Prerogative, not by Statute. A motion of protest against this action of the Government was defeated in the House of Commons by five votes and the education vote of the year (including salaries of the new establishment) carried only by two. The House of Lords carried by a majority of 111 votes an address to the Queen, praying Her Majesty "to give directions that no steps should be taken with respect to the establishment of any plan for the general education of the people without giving to this House, as one branch of the legislature, an opportunity of fully considering a measure of such importance to the highest interests of the community." This protest was disregarded.

Dr. Kay (afterwards Sir James Kay-Shuttleworth), an

assistant-commissioner of the Poor Laws, was at once appointed permanent secretary of the new department, with two inspectors. Thenceforward, the growth in the influence of the Central Authority in English education was continuous. The policy adopted was to recognise denominational efforts on terms which would secure a due measure of educational efficiency while counteracting exclusiveness and intolerance.

The first Minutes (1839) of the Committee of Council on Education (1) abandoned the plan for a State Training College; (2) divided between the National Society and the British and Foreign School Society the £10,000 which had been voted by Parliament in 1835 for the erection of a State Training College; (3) set on foot inquiries into the state of education in the Kingdom; (4) made Government inspection (without any interference with the religious instruction or management of the school) a condition of all grants; (5) announced that in the distribution of grants consideration would be given to the circumstances of very poor and populous districts; (6) extended the scope of the Parliamentary grant to schools not in connection with the National Society or the British and Foreign School Society, provided that the daily reading of a portion of Scripture formed part of the course of instruction; and (7) declared that, in the assignment of grants, preference would be given to schools which "do not enforce any rule by which the children will be compelled to learn a catechism, or attend a place of Divine worship, to which their parents on religious grounds object." The State thus conciliated the denominations, declared itself against secular education, secured a right of general supervision, and abandoned the idea of centralised control over the training of teachers.

The Church of England and the Church of Scotland were desirous, the British and Foreign School Society was unwilling, that the religious instruction given in their schools should be open to examination by the Government inspector. Accordingly, in 1840, the inspected schools were divided into three classes, and the Government



entered into a concordat with the ecclesiastical authorities concerned that the inspectors assigned to schools in connection with the Church of England and with the Church of Scotland should be appointed with the concurrence of the authorities of the respective Churches. In 1843 a similar arrangement was made with the British and Foreign School Society.

In 1843 strong Nonconformist opposition compelled Sir Robert Peel's Government to withdraw the education clauses of Sir James Graham's Factory Bill as unduly favourable to the Church of England. In the same year the Committee of Council first gave regular grants in aid of (1) the erection of teachers' residences, (2) the purchase of school furniture and apparatus, and (3) the establishment of Training Colleges. With the help of the windfall grant of 1839, the National Society had in the meantime built St. Mark's College, Chelsea, and the British and Foreign School Society the new College in Borough Road, which had been originally instituted in 1805 on a small scale by Joseph Lancaster.

The experience of the earlier training colleges (especially that of Borough Road and of the Battersea College, which had been founded by the private liberality of Sir J. Kay-Shuttleworth and Mr. Carleton Tufnell upon the model of a Swiss Normal School) showed the need for recruiting the colleges with students who had received a better general education, and for further assistance towards their efficient maintenance.

In 1846, accordingly, the Committee of Council announced a new series of grants-in-aid, designed for the improvement of the teaching-power of the elementary schools :

- (1) Stipends were offered to pupil teachers indentured for five years' apprenticeship (13—18), and rewards to the schoolmasters or mistresses who trained them. The pupil teachers were to be annually examined by H.M. Inspector. This method, copied from Holland, was intended to

supersede the system of juvenile monitors introduced by Bell and Lancaster.

- (2) Queen's scholarships, tenable at a training college, were offered for competition among pupil teachers at the close of their apprenticeship. To candidates unsuccessful in this competition but otherwise suitable, it was proposed to give a preferential claim for employment in the public service.
- (3) Annual grants were made to inspected training colleges in respect of each student in training.
- (4) College-trained teachers were to receive from Government annual subsidies in addition to the salary received by them for the managers.
- (5) Retiring pensions were granted to teachers after long and efficient service.
- (6) Grants were offered in aid of school field-gardens, school workshops, and practical instruction in domestic economy.

These minutes mark the close of the tentative period of State aid to elementary education. Henceforward the Government was committed to a definite policy in educational administration. The aggregate grant had risen from £30,000 in 1839 to £100,000 in 1846.

#### REFERENCES.

- Minutes of the Committee of Privy Council on Education. (Issued in chronological order, by direction of the House of Commons, in 1855.)
- Sir J. Kay-Shuttleworth. *The School in its Relations to the State, the Church, and the Congregation*. (First issued anonymously in 1847.)
- Report of the Duke of Newcastle's Commission, 1861, vol. i.

### Education under the Poor Law.

In England the public obligation to supply elementary education was first recognised in the case of the children of the destitute poor.

The Poor Relief Act of 1601 (43 Elizabeth) had among its chief purposes

- (i.) "the setting to work the children of all such whose

parents shall not, by the Churchwardens or Overseers, or the greater part of them, be thought able to keep and maintain their children; ”

- (ii.) “the putting out of such children to be apprentices.”

The administrative unit adopted by the Act of 1601 was the Parish, which from time immemorial had been under obligation towards its poor and in a great number of cases had contributed out of local rates towards the education of the children of destitute or impoverished parents.

Industrial training of a primitive and non-educational kind given in workhouses which were established in London, 1655 and (by Thomas Firmin) 1676, Norwich, Bristol, 1696, and in charity schools, 1699, and onwards. This training for poor children was recommended by John Locke, 1697, whose advice was widely followed during the eighteenth century.

The Act of 1723 (anticipated by many private Acts) enabled parishes to form themselves into Unions for the establishment of workhouses in which industrial training was often given. In some cases (*e.g.*, Shrewsbury) the management of the workhouse was humane, but generally the children suffered from overwork, especially as apprentices under the employers to whom they were indentured at an early age. It was assumed that early employment was beneficial to the children. Public opinion was callous. Profit from child labour was approved. The employment of pauper apprentices in factories, when the Industrial Revolution changed the conditions of labour, extended the evil and probably accentuated it.

In 1784 the Justices of the Peace for Lancashire appointed Dr. Percival and other Manchester doctors to investigate an outbreak of fever at a cotton mill at Radcliffe. Percival's report drew attention to the neglected education of the children employed and to the need for a limitation of their hours of labour. The Magistrates resolved in consequence to refuse to indenture parish apprentices to owners of works in which children were

employed at night or more than ten hours in the day. The resolutions of the Manchester Board of Health, 1796, were the germ of the Factory Acts.

Pitt's Bill for the better support and maintenance of the poor (1797) proposed the establishment of schools of industry by all parishes, acting separately or in union.

Sir Robert Peel, the elder, introduced in 1802 the "Health and Morals of Apprentices Bill," which was carried. This was a special application of the Poor Law, and the earliest of the Factory Acts.

It limited the hours of labour of parish apprentices employed in factories, provided for their better accommodation, and required their elementary education. It did not touch domestic industry.

Whitbread's Bill "for the promoting and encouragement of industry among the labouring classes of the community, and for the effective relief and regulation of the criminal and necessitous poor" (1807) proposed, among other reforms, a general system of national elementary education upon a parochial basis. He had the example of Scotland in view, and recommended the adoption of the monitorial system of Bell and Lancaster. Cost to be defrayed from rates. Teachers to be (i) nominated by the minister of the parish acting with the overseers of the poor and the churchwardens, (ii.) approved by the vestry, and (iii.) ratified by the justices of the peace. Free education for two years for pauper children, orphans, and children of agricultural labourers.

The Poor Law Commissioners, 1832, recommended the classification of the inmates of workhouses and the separate care of pauper children. They proposed a new Poor Law district (the Union) in place of the parish, and a new administrative body (the Poor Law Guardians), partly elected by qualified ratepayers, in place of the overseers and justices of the peace. They also recommended the establishment of a Central Authority (the Poor Law Board) in London with powers of control (including audit) over the Poor Law Guardians throughout the country.

THE Poor Law Amendment Act, 1834, gave effect to the Commissioners' recommendations. It directed the Poor Law Board to regulate the education of children in workhouses. The Board ordered that "boys and girls who are inmates of the workhouses shall, for three working hours at least every day, be instructed in reading, writing, and arithmetic, and the principles of the Christian Religion; and such other instruction shall be imparted to them as may fit them for service and train them to habits of usefulness, industry, and virtue."

The evil results of the education given to children in the ordinary mixed workhouse were disclosed by the reports on the training of pauper children issued by the Poor Law Board, 1841, but little was done towards classifying the inmates or for the separate accommodation of children. The Guardians were mostly indifferent, or hostile, to education.

In 1844 an Act gave power to the Poor Law Board to combine poor law unions or parishes into districts for school purposes. One-fifth of the average rates of the union might be expended on the district school. This is the first case in modern England of a local authority being established with rating powers for elementary education, but the Act of 1723 was a precedent. Owing to statutory limitations, comparatively little was done under the Act of 1844.

In 1846 the Education Department made special grants for the salaries of masters and mistresses of schools for pauper children, and would have liked to raise their salaries and status to that of teachers in the ordinary elementary schools. But in most cases the niggardliness of the Guardians and the jealousy of the workhouse masters prevented this. Thus, the opportunity which offered itself in 1846 for the great improvement of education under the poor law was lost.

In 1847, the Education Department appointed four inspectors of poor law schools with the duty of periodically reporting on these schools to the Department. In 1863 these inspectors were transferred to the Poor Law Board,

and the connection between the two Departments severed.

In 1870 the Elementary Education Act empowered a School Board to remit the whole or any part of the fee in the case of a child attending a Board school whose parent was, in the opinion of the School Board, unable from poverty to pay the fee, such remission not to be deemed parochial relief to the parent (Section 17).

In 1876 the Elementary Education Act allowed any parent, not being a pauper, who was unable to pay the ordinary fee for his child at a public elementary school (whether a Board school or a voluntary school), to apply to the Guardians for help, and required the Guardians, if satisfied of his inability, to pay the fee (not exceeding 3d. a week) or such part of it as the parent was in their opinion unable to pay.

In 1878 the standards of examination in poor law schools were assimilated to those in the schools under the Education Department.

The Education Act, 1891, paying to the managers from the national exchequer a fee grant of ten shillings for every child in average attendance at a public elementary school, relieved the Guardians to that extent and encouraged the already strong tendency to send pauper children to the ordinary elementary schools. By the Elementary Education Act, 1900, the Guardians may contribute towards the expense of any school used by poor law children, so that the expense may be fairly distributed over the whole union.

Since 1903, teachers in Poor Law Schools are admitted to the certificate examinations of the Board of Education which recognises service in those schools as pensionable.

Recommendations of the Poor Law Commissioners, 1909.

#### REFERENCES.

- Redlich and Hirst. *Local Government in England* (Macmillan), vol. i., part ii., chapter ii.
- Sidney and Beatrice Webb. *English Local Government, Parish and County* (Longmans).
- J. E. G. de Montmorency. *State Intervention in English Education* (Cambridge University Press), pages 193 ff., 219 ff.

- B. Kirkman Gray. *History of English Philanthropy* (P. S. King and Son), pages 73 ff., 114 ff.
- Sir F. M. Eden. *The State of the Poor* (London: Davis, 1797), vol. iii., Appendix xi.
- B. L. Hutchins and A. Harrison. *A History of Factory Legislation*. (P. S. King and Son), chapter i.
- Report of the (Duke of Newcastle's) Commission on the State of Popular Education in England, 1861, vol. i., pages 366 ff.
- Graham Balfour. *Educational Systems of Great Britain and Ireland* (Oxford University Press), pages 63 ff.
- Report of the Poor Law Commissioners, 1909. Majority and Minority Reports.

## Robert Owen.

### I.

Born at Newtown, Montgomeryshire, 1771. Precocious literary and religious interests in childhood. Began to help his schoolmaster in teaching at the age of 7: "I thus early acquired the habit of teaching others what I knew." Apprenticed, aged 10, to draper at Stamford: "From ten years of age I maintained myself without ever applying to my parents for any additional aid." In 1787 (during the early days of the Industrial Revolution) became assistant in Mr. Satterfield's draper's shop, St. Ann's Square, Manchester. In 1789 set up as a maker of spinning-mules. Showed great business ability.

### II.

Active business life as employer, 1790—1821. In 1790 became a cotton spinner on a small scale in Manchester, subsequently manager of large cotton mill, and (in 1794) a managing director of the Chorlton Twist Company, Manchester. In 1799, bought for himself and partners the cotton mills at New Lanark, near Glasgow, belonging to Mr. Dale, whose daughter he married in the same year. In Manchester, Owen had become the friend of John Dalton and Dr. Percival, and was a member of the Manchester Literary and Philosophical Society, established 1781. From this group he gained the impulse

towards the reform of the factory system and the better education and housing of apprentices and workpeople. Organised the rough and ignorant factory community at the New Lanark Mills (about 2,000 people, including 500 children sent from parish workhouses as apprentices) under paternal government, enforcing cleanliness, temperance, and religious toleration. Minimum age for employment fixed at 10. Free education for all children from 5 to 10. Teaching and discipline followed methods of Joseph Lancaster. In 1813, Jeremy Bentham and William Allen (one of the founders of the British and Foreign School Society) became partners. 1813—1816 wrote *A New View of Society, or Essays on the Formation of Human Character*, in which he thus formulated his fundamental principle: "Any general character, from the best to the worst, from the most ignorant to the most enlightened, may be given to any community, even to the world at large, by the application of proper means; which means are to a great extent at the command and under the control of those who have influence in the affairs of men" (page 11). The "plastic quality" of child nature would enable society to be "ultimately moulded into the very image of rational wishes and desires." "All poverty and crime are the effects of error in the various systems of training and government." "The end of government is to produce the greatest happiness to the greatest number." National reform to be based on (1) restriction of the drink traffic; (2) maintenance of the national church, but as an institution without formularies and without any declaration of religious belief; (3) reform of poor law; (4) universal elementary education from infancy. "The infants of any one class in the world may be readily formed into men of any other class." "Every State to be well governed ought to direct its chief attention to the formation of character; and the best governed State will be that which shall possess the best national system of education." National system of education to be uniform over the United Kingdom, upon non-denominational lines, under control of central government which should



provide and support training colleges for teachers and appoint teachers to the schools; (5) "the obtaining regular and accurate information relative to the value of and demand for labour over the United Kingdom." Official quarterly labour statistics, showing wages and unemployment in each district, with a view to greater mobility of labour; (6) Government to provide works of national utility (roads, canals, harbours, etc.) for employment (at wages less than the average rate of private labour in the district) of those not able to find employment in competitive industry.

Owen and New Lanark quickly became famous. In 1814--1815 he pressed for a new factory act: "Perish the cotton trade, perish even the political superiority of our country (if it depends on the cotton trade), rather than they shall be upheld by the sacrifice of everything valuable in life by those who are the means of supporting them." In 1817 he published a plan for the establishment of industrial communities, self-contained, educationally organised and self-supporting, upon a co-operative basis—a new type of social organisation which, he believed, would gradually become universal. The plan involved governmental control, which was resented by Radical individualists as likely to strengthen the authority of the existing Government. In 1818, Owen visited Switzerland and saw Oberlin, Pestalozzi, and Fellenberg. In 1819, he estranged public sympathy by public declaration against Christianity. In 1829, after long friction with his partners, he withdrew from New Lanark.

### III.

1829—1858, continuously engaged in propaganda on behalf of co-operation and socialism, devoting his private fortune to the diffusion of his ideas.

### IV.

Owen emphasised (1) the importance of social environment, (2) the need for an economic structure of society in

conformity with a new ethical ideal, (3) the necessity for using capital in the organisation of community life, and (4) the value of well-directed education from infancy. But he underestimated the power of heredity, overlooked the bad side of human nature, underrated the complexity of the economic structure of industrial society, exaggerated the power of direct instruction upon character, was over-sanguine as to the practical efficiency of governmental action, and did not clearly decide whether the ultimate basis of social control is to rest on the majority vote or upon some enlightened despotism, whether individual or bureaucratic. His persevering but tedious speeches disseminated socialistic ideas but failed to convince national opinion, which preferred a combination of individual effort and of State regulation.

#### REFERENCES.

- Robert Owen. *A New View of Society*, 1816. (This is by far the pithiest and most effective of his numerous works.)  
 Robert Owen. *Addresses to the Teachers of the Human Race in all Countries*, 1851. (Prosy and diffuse.)  
 Robert Owen. *Life of Robert Owen*, written by himself, vol. i., 1857. (An unfinished autobiography, vivid and self-revealing.)  
 Frank Podmore. *Robert Owen: A Biography*. Two vols. (London: Hutchinson, 1906.) (The best life.)

### The Educational Effects of the Factory Acts and Public Health Acts.

#### I.

##### (1) FACTORY ACTS.

By the Factory Acts, the British Government first prescribed a minimum of educational opportunity for young people engaged in factories and workshops, and thus adopted the principle of compulsory education which was afterwards extended by the Education Acts. The procedure was to throw new statutory obligations upon employers of juvenile labour and to secure observance of the law by means of inspectors appointed in the first case

locally, but later by the central authority. The Factory Acts introduced the system of half-time, which dovetailed a course of education into what would otherwise have been unbroken periods of wage-earning labour.

The principle of compulsory education (proclaimed in the Grand Duchy of Weimar in 1619, in Gotha 1642, in Massachusetts 1642, in Connecticut 1650, in the Isle of Man 1703, and in Prussia 1716) is found in embryo in the 59th Canon of the Church of England, 1603, but was not effectively realised in England as a broad principle of State policy, owing to religious dissensions and differences of social ideal which led to oscillation of purpose on the part of the central authority. Industrial and economic changes in English life ultimately compelled a tardy application (first in the form of Factory Acts) of a principle which in Germany and New England was enforced, under the influence of the Protestant Reformation, in order to promote unity of religious belief.

## (2) PUBLIC HEALTH ACTS.

In England, sanitary reform under State compulsion (beginning 1848) preceded the systematic organisation of national elementary education (1870). The provision of a healthy environment commanded the support of public opinion before the universal provision of intellectual opportunity. This was due to three causes: (a) in sanitary reform, religious controversies were not directly raised. It was therefore the line of least resistance; (b) the need of sanitary improvement was more obviously urgent than that of intellectual improvement. The condition of the great towns and of the factory districts compelled action. The outbreaks of cholera beginning in 1831 enforced sanitary reform in England as the defeats of Jena and Auerstadt in 1806 forced educational, military, and municipal reform upon Prussia; (c) the economic advantage of good hygiene could be plainly proved by statistics (beginning in 1834) of mortality and sickness. The loss of working ability through insanitary conditions

among large sections of the population was estimated at from eight to ten years' working life. English reformers, always prone to underrate the social value of intellectual enlightenment and alarmed at its possible results, have nevertheless been pre-eminent in their insistence upon hygiene as a factor in national education. English example, while backward in regard to the organisation of intellectual forces, has widened the idea of the educational functions of the State.

## II.

### 1) FACTORY ACTS.

1. Health and Morals of Apprentices Act, 1802. Limitation of working hours of apprentices to twelve a day; night work by apprentices forbidden; apprentices to be instructed in reading, writing, and arithmetic, and to attend Church at least once a month. All mills and factories to be annually registered. Justices of the Peace to appoint from their own number two inspectors of factories, one to be a clergyman. Small fines imposed on employers who violated the law. This Act, imperfectly enforced and being confined to apprentices, failed to touch unapprenticed children sent by their parents to work in the factories. Really a further application of the poor law, this Act is important as an extended recognition of the educational responsibilities of the State towards children and young people, and as a precedent for imposing statutory obligations upon employers.

2. Robert Owen's reform of factory life in the New Lanark Mills (1800—1816); his *Observations on the Effect of the Manufacturing System* (1815), urging State regulation of factory conditions and suggesting part-time education for mill children.

3. Factory Act, 1819. Employment of children under 9 prohibited in cotton mills and factories.

4. Ten Hour Bill agitation (Richard Oastler and Michael Thomas Sadler), 1830. Select Committee on Condition of Factory Children, 1832. Factory Act, 1833,

forbade employment of children under 9 in textile factories, except silk mills; limited the hours of employment of children under 13; and required the appointment of Government Factory Inspectors with power to enforce school attendance under competent teachers. No child between 9 and 13 might be employed without proof of attendance at school for two hours on six days in each preceding week. Inspector might require employer to deduct one penny in the shilling from a child's wages and to pay the same for the schooling of the child according to his direction.

5. In the Government Factory Bill, 1843, Sir James Graham proposed compulsory education of children in workhouses, and those employed in woollen, flax, silk, and cotton manufactories, requiring daily school attendance for at least three hours. Schools to be maintained out of the poor rate. Government loans to be offered for erection of schools. Management of each school to be entrusted to seven trustees, including clergyman and churchwardens *ex officio*, two trustees appointed by the magistrates, and two millowners. Schoolmaster to be required to be a member of the Church of England, and his appointment by the trustees to be subject to the approval of the Bishop. Right of inspection reserved to clerical trustees and to the Committee of Council on Education. Widespread Nonconformist opposition caused withdrawal of the education clauses, though Government offered modifications: (i.) denominational teaching to be separate and voluntary; (ii.) right of entry for Nonconformist ministers.

6. Factory Act, 1844, increased the powers of the Factory Inspector to control the efficiency of schools attended by mill children; compelled parents of children employed in mills to cause them to attend school three full days or six half days in each week. In 1864 and 1867, regulations extended to non-textile factories and to workshops.

7. Factory Act, 1874, raised minimum age of employment in textile factories to 10, and required half-time education up to 13 in all cases and up to 14 unless the

child had already reached the Fourth Standard. Elementary Education Act, 1876, extended these regulations to non-textile factories and workshops.

8. The Factory and Workshop Act, 1891, fixed the minimum age of employment in factory or workshop, from 1893, at eleven years. The Factory and Workshop Act, 1901, raised this age to 12.

As the law now stands, a child of 12 (i.) may claim partial exemption from school attendance if he is employed under the Factory Act; (ii.) may obtain total exemption from school attendance if he has reached the standard of proficiency prescribed in the bye-laws of the local education authority, unless he is employed under the Factory Act, in which case he is obliged to attend school half-time till 13.

It is now proposed that County and County Borough authorities should have power to limit the hours of labour and to require part-time education in the case of young persons up to 17 years of age, with limitation of their hours of labour, where necessary to prevent overstrain. The Scotch Education Act, 1908, clause 10, is a precedent.

## (2) PUBLIC HEALTH ACTS.

Edwin Chadwick (1800—1890), born at Longsight, Manchester. A disciple of Jeremy Bentham and member of the Poor Law Commission, 1832—1834. Was chiefly influential in securing legislation for the public health. At his instance, Parliament created in 1834 a central statistical department (General Register Office), with local registrars appointed by the Boards of Guardians subject to qualifications prescribed by the central authority. The official statistics published by this Department were the indispensable basis of later social legislation.

Chadwick appointed first Secretary of the new Poor Law Board, 1834—1846. A strong advocate of efficient centralised control. Directed investigations into local sanitary conditions. Wrote *Report on the Sanitary Condition of the Labouring Classes of Great Britain*, 1840.

This showed that moral agencies (including education) were hampered by "physical barriers to improvement."

Report of Royal Commission on the Health of Towns and Populous Places, 1845, led to Public Health Act, 1848, which established, as central sanitary authority, a General Board of Health which was empowered to create a Local Health District and a Local Board of Health on petition from ratepayers or in any locality where the annual mortality had, during the previous seven years, exceeded the proportion of 23 to 1,000 of the population. In municipal boroughs, the Town Council became the local sanitary authority; in other places, a new *ad hoc* health authority was set up with power to levy general district rate upon the poor law assessment. General Board of Health was independent of Parliament, was appointed provisionally for five years, consisted of three members (Chadwick being one) and had powers of central inspection and the duty of auditing the accounts of the local authority. Local bye-laws had to receive its approval.

The General Board of Health was modelled on Benthamite principles of centralised efficiency. Under Chadwick's influence it favoured administrative interference with freedom of commerce. It recommended that "with a view to the improvement or cheapening of certain trade services to the public, it should be made a function of Government (central or local as the case might be) to intervene between buyers and sellers by converting each local trade service into a conditional monopoly, which would be conceded by auction or tender to one person, or one body of persons, for each suitable district: so that in each case there should be competition *for* the field of service, instead of competition *within* the field of service, and that the service instead of being *unregulated* should be *under conditions*" (Simon. *English Sanitary Institutions*, p. 223).

Chadwick desired a scientific re-organisation of English industrial and social life, under the direction of *ad hoc* bodies served by expert officials. These proposals

aroused violent opposition (led by Toulmin Smith, who resisted administrative centralisation as unconstitutional and as incompatible with direct control by Parliament). In 1804, the *personnel* of the General Board of Health altered (Chadwick retiring on a pension), its powers and duties being transferred to a new Board of Health which was continued by annual re-appointment till 1858. The Local Government Act, 1858, dissolved the General Board of Health, transferred most of its powers to the Local Government Department of the Home Office (created a separate Department, 1871) and lessened the powers of the central authority over reluctant local districts.

The Royal Sanitary Commission, 1868—1871, recommended reversion to a strong central body, with powers to enforce sanitary organisation upon backward districts. In result, Local Government Board created 1871; sanitary duties of local authorities greatly extended in 1874; and codification of all laws relating to public health, by the Public Health Act, 1875 (a consolidation, with amendments, of forty-three previous statutes). All England covered by urban and rural sanitary authorities.

The Public Health Acts recognise the necessity of the application of scientific principles to social organisation, with a view to the improvement of the physical, moral, and intellectual condition of the community. In the sphere of public health legislation, the struggle between the principles of *laissez faire* and State regulation was brought to an issue which involved systematic State action in education. The principle of State regulation of public hygiene is applied directly to the case of school children by the Education (Administrative Provisions) Act, 1907, section 13 (1) b, which requires every local education authority, under Part III. of the Education Act, 1902 (*i.e.*, every County and County Borough Council and every Council of a borough with a population of over 10,000, or of an urban district with a population of over 20,000) "to provide for the medical inspection of children immediately before, or at the time of, or as soon as possible after their admission to a public elementary



school and on such other occasions as the Board of Education "direct." These authorities are also given statutory "power to make such arrangements as may be sanctioned by the Board of Education for attending to the health and physical condition of the children educated in public elementary schools." The Act further provides that "in any exercise of powers under this section, the local education authority may encourage and assist the establishment or continuance of voluntary associations for the purpose."

The Children Act, 1908, section 122, gives further powers to local education authorities for the securing of personal cleanliness of children attending public elementary schools. The regulations for medical inspection of school children are issued by the Board of Education in Circular 576 (1907) and Circulars 582 and 596 (1908).

#### REFERENCES.

- B. L. Hutchins and A. Harrison. *A History of Factory Legislation* (London: P. S. King, 1907).  
 Sir John Simon. *English Sanitary Institutions* (London: Cassell, 1890).  
 Redlich and Hirst. *Local Government in England*, vol. i., pp. 134—174; vol. ii., pp. 276—301.  
 B. L. Hutchins. *The Public Health Agitation, 1833—1848* (London: Fifeild, 1909).  
 Markham and Tennant. *The Factory and Workshop Acts of the British Dominions* (London: Eyre and Spottiswoode).  
 Graham Balfour. *Educational Systems of Great Britain and Ireland*, pp. 46—51.  
 Report of Interdepartmental Committee on Partial Exemption from School Attendance. 1909. Cd. 4791.

### Popular Education for Adults; Mechanics' Institutes; Working Men's Colleges; Foundation of the Science and Art Department.

1. The stir of scientific and political thought produced in Great Britain by the Industrial and French Revolutions led to a great demand for adult education on the part of artisans. The demand was two-fold—for elementary instruction (many could not read or write) and for instruction in physical science.

2. Night schools and adult Sunday schools (Nottingham, 1798; Bristol, 1812, etc.) met the first need. These schools, largely helped by the Society of Friends, were the origin of the adult school movement of to-day.

Evening lectures on science met the second demand. The Birmingham Sunday Society (founded 1789) the earliest. Dr. Anderson's science lectures to artisans in Glasgow, 1790—1796. After Anderson's death in 1796, this work carried on by Dr. George Birkbeck and others. Edinburgh School of Arts founded 1821; Mechanics' Institutes established in Glasgow, in Liverpool, and in London (Dr. Birkbeck) 1823, and in Manchester 1824. The last-named has developed into the Municipal School of Technology. Yorkshire Union of Mechanics' Institutes founded 1837; Lancashire and Cheshire Union, 1847. Decline of many mechanics' institutes (1) through defects in elementary education, (2) through absence of laboratory and class work, and (3) through social cleavage between middle-class organisers and artisans.

3. William Lovett's plan for national education, 1837. His suggestion of evening colleges. The People's College at Sheffield founded 1842. This suggested to Frederick Denison Maurice (1805—1872) and the Christian Socialist group the idea of the Working Men's College in London, 1853. First connexion between the older Universities and adult popular education. The idea of "association" impressed upon English social reformers by the French Revolution, 1848.

4. Government grants first given to evening schools in 1851. The great exhibition of that year disclosed many defects in British manufacture and showed the need for systematic instruction in art and science. The Government (largely at the instance of the Prince Consort) established the Department of Practical Art in 1852 and added a Science Division in 1853. Under the name of the Department of Science and Art it continued under the Board of Trade till 1856, when it was transferred to the Education Department, retaining its separate organisation

and staff, but being under the same Parliamentary heads. It was absorbed into the Board of Education in 1899.

In 1859 the Science and Art Department held its first examination for teachers, and its first general examination for students in 1861.

#### REFERENCES.

- M. E. Sadler. *Continuation Schools in England and Elsewhere*, chapter i.  
 Graham Balfour. *Educational Systems of Great Britain and Ireland*, pp. 154 ff.

### Obligation to Attend School.

(1) Compulsory attendance at school in England began under the Factory Acts.

The Health and Morals of Apprentices Act, 1802, imposed upon employers of apprentices in cotton and woollen mills the duty of seeing "that every such apprentice shall be instructed, in some part of every working day, for the first four years at least of his or her apprenticeship, in the usual hours of work, in reading, writing, and arithmetic, or either of them, according to the age and ability of such apprentice, by some discreet and proper person, to be provided and paid by the master or mistress of such apprentice, in some room or place in such mill or factory to be set apart for that purpose." The time thus assigned for elementary education had to be taken out of the twelve hours fixed as a maximum limit of daily employment for such apprentices. The Act, though it educated public opinion and gave a precedent for State interference, was ineffective through inadequate restriction of work-hours and through failure to provide systematic official inspection.

The Factory Act of 1833 forbade any child under 9 years of age to be employed in a factory at all. No child between 9 and 13 might be employed without proof of attendance at school for two hours on six days in each preceding week. Millowners were subject to a penalty if they employed children without a certificate from the

schoolmaster of their having properly attended school. The Factory Inspector (under the Home Office) was given power to direct the millowner to pay to the schoolmaster for the children's school-fees a sum not exceeding one penny in the shilling out of the child's wages.

In the Factory Bill, 1833, as it passed the House of Commons, the Factory Inspector was "authorised and required to establish, or procure the establishment of, a school to enable the children employed in any factory to obtain the education required by the Act." If the deduction from the children's wages was insufficient to pay the expenses of such a school, the employers of the children were required to pay the deficiency, in proportion to the number of children in their employment, to an amount assessed by the Inspector who was to receive these payments for school purposes. The employer was given power to deduct the sum so paid from his poor rate. If the amount charged to him by the Inspector for education exceeded the amount of his poor rate, the excess was to be reimbursed to the employer out of the poor rates. The Inspector might apportion the cost of maintaining a school for factory children among the different parishes in which the children resided. By the same clause the Inspector was given power to dismiss any schoolmaster or schoolmistress who, in his judgment, was incompetent or in any way unfit for the performance of the duties of his office. The House of Lords substituted for this clause the following and much less effective provision: "That wherever it shall appear to any inspector that a new or additional school is necessary or desirable to enable the children employed in any factory to obtain the education required by this Act, the inspector is authorised to establish, or procure the establishment of, such school." This amendment withdrew from the inspector the power of compelling the establishment of a school out of the poor rate and of refusing to recognise attendance at a school where the instruction was unsatisfactory.

The Factory Act of 1844 armed the inspectors with power to inspect factory schools and to disqualify school-

masters whom they considered incompetent. The age at which half-time employment might begin was lowered to 8. But children who were employed every day, were required to attend school for three hours on each working day during any part of which they were employed. Children employed on alternate days had to attend school for at least five hours between 8 a.m. and 6 p.m. on the week-day preceding each day of employment. The maximum which might be deducted from the child's wages for school-fees was fixed at 2d. a week.

In 1864—1867, these regulations were extended to non-textile factories.

(2) The Duke of Newcastle's Commission (reporting in 1861) declared that any system of compulsory attendance at school was "neither attainable nor desirable" in England. "An attempt to replace an independent system of education by a compulsory system managed by the Government would be met by objections, both religious and political, of a far graver character in this country than any with which it has had to contend in Prussia." But public opinion greatly changed during the decade 1860—1870 in consequence of (*a*) inquiries into the state of education in urban districts, which showed grave deficiencies in the supply and quality of schools; (*b*) the growth of a belief in the necessity of State action for social betterment (Carlyle and the Christian Socialists); (*c*) the proofs, in the American Civil War, 1861—1865, of the superiority of the Northern States, derived in part from popular education; and (*d*) the advantages of elementary education as a factor in military efficiency, as shown by the success of Prussia in the war with Austria in 1866.

(3) The Elementary Education Act, 1870, required the provision in every school district of a sufficient amount of accommodation in efficient and suitable public elementary schools for all the children resident in the district. It also (Section 74) made it possible for the attendance of children at school to be enforced in school districts in which there was a School Board and for which the School

Board was willing to make bye-laws for the purpose. Such bye-laws (which were subject to the approval of the Education Department) might require the parents of children of such age, not less than 5 years nor more than 13 years, as might be fixed by the bye-laws, to cause such children to attend school, unless there were some reasonable excuse. The bye-laws were to determine the hours during which children were to attend school, and were to impose penalties for non-observance, but might not (i.) prevent the withdrawal of any child from any religious observance or instruction in religious subjects; or (ii.) require any child to attend school on any day exclusively set apart for religious observance by the religious body to which his parents belonged; or (iii.) be contrary to anything contained in any Act for regulating the education of children employed in labour. It was, however, required by the Elementary Education Act, 1870, that local bye-laws should provide for the remission or payment of the whole or any part of the school-fees of any child whose parent satisfied the School Board that he was unable from poverty to pay the same. The Act recognised any of the following reasons as a reasonable excuse for non-attendance at a public elementary school: (a) that the child was under efficient instruction in some other manner; (b) that he had been prevented from attending school by sickness or any unavoidable cause; and (c) that there was no public elementary school open, which the child could attend, within such distance (not exceeding three miles measured according to the nearest road from the residence of the child) as the bye-laws might prescribe.

The Elementary Education Act, 1876, extended this law to school attendance, (a) by a general declaration (Section 4) of the duty of the parent to cause his child to receive efficient elementary instruction in reading, writing, and arithmetic, subject to penalties in case of default; (b) by a general prohibition of the employment of children who had not satisfied certain conditions of age, proficiency, and school attendance (no child to be employed under 10

years); and (c) by establishing a local authority for every school district, whether under a School Board or not, for the purpose of enforcing the provisions of the Act and of making bye-laws in school districts for which there was no School Board. The limits of compulsory attendance laid down by this Act (subject to exceptions made by the Factory Acts) were from 5 to 14 years.

The Elementary Education Act, 1880, compelled all School Boards and School Attendance Committees to make bye-laws regulating the attendance of children at school. Complete attendance at school was enforced up to the age of 10.

By the Elementary Education (School Attendance) Act, 1893, the minimum age for total or partial exemption from obligation to attend school was raised to 11.

(In 1893, the Elementary Education (Blind and Deaf Children) Act extended the period of compulsory education in the case of blind or deaf boys or girls to 16, the period of compulsory education in the case of a deaf child beginning at 7.)

An amending Act, carried in 1899 and generally called Robson's Act, raised the minimum age of complete or partial exemption to 12, but allowed (Section 1), in the case of children to be employed in agriculture, 13 years to be fixed as the minimum age for exemption from school attendance, with a proviso that such children might be employed in agriculture at the age of 11 on condition that they attended school 250 times a year up to the age of 13.

The Elementary Education Act, 1900, permitted local authorities to raise the age of compulsory attendance under their bye-laws from 13 to 14.

(4) The present law of school attendance (England and Wales) is very complex and in some respects uncertain. School attendance is regulated partly by Education Acts, partly by local bye-laws framed under the Education Acts, partly by the Factory Acts and other Acts regulating the employment of children, and partly by the Education (Blind and Deaf Children) Act. It may be generally stated that the combined effect of these Acts and bye-laws

is that all children must attend school from their fifth (deaf children are not under compulsion till 7) to their fourteenth birthday (blind and deaf children to their sixteenth birthday), subject to certain exemptions which may be obtained during the last three years of the school period.

The following summary of the law of school attendance was published in the Report of the Interdepartmental Committee on Partial Exemption from School Attendance, 1909:

(a) The ordinary age at which exemption may be obtained is 12, but local education authorities may include in their bye-laws a special provision allowing a child between 11 and 13 who is employed in agriculture to be absent from school during part of the year if he makes 250 attendances during another part of the year.

(*Note*.—About one-quarter of the whole population of England and Wales live in areas where such a bye-law exists. But the number of children who are exempt under this special bye-law is very small, apparently not exceeding 400 in the whole country, in 1909.)

(b) At the age of 12 a child may claim partial exemption if he is employed under the Factory Act, or if he has reached the standard of proficiency, or of previous attendance, prescribed in the bye-laws of the local education authority. (This standard of proficiency varies between Standards III. and VI. according to the bye-laws; the standard of previous attendance is 300 attendances in not more than two schools during each of five previous years.)

(c) A child of 12 can obtain total exemption if he has reached the standard of proficiency prescribed in the bye-law (i.) unless he is employed under the Factory Act, in which case he is obliged to attend school half-time till the age of 13, or (ii.) unless he has taken advantage of the special provision of the Elementary Education Act, 1899, enabling him to be employed in agriculture at the age of 11. The standard of proficiency for total exemption



varies between Standards V. and VII. in different localities.

(d) In a large number of cases the bye-laws permit a child on reaching the age of 13 to obtain total exemption, for the purpose of employment, if he has made 350 attendances after 5 years of age in not more than two schools during each of five previous years. This is the provision under which total exemption is most commonly claimed.

(e) Local authorities are not obliged to provide in their bye-laws for both partial and total exemption. In a considerable number of cases the bye-laws contain provisions for total exemption only.

(5) About three-fifths of the population of England and Wales live in areas where no child under 14 years of age is wholly released from school attendance before he or she has reached the seventh standard. In a few of these areas, however, children between 13 and 14 can obtain full-time exemption for purposes of employment, on an *attendance* qualification. It is believed that in 1907 about 211,000 children under 14 years of age had obtained full-time exemption from the obligation to attend school.

#### REFERENCES.

- Report of the Duke of Newcastle's Commission, 1861, vol. i., pp. 180—221, 297—300.
- Report of the Interdepartmental Committee on Partial Exemption from School Attendance, 1909, vol. i., especially pp. 1—2.
- Report of the Consultative Committee of the Board of Education on Attendance, Compulsory or Otherwise, at Continuation Schools, vol. i., pp. 21—27, 277—278.

### Thomas Arnold, Headmaster of Rugby.

1. *Biography*. Born 1795 at Cowes, Isle of Wight; his boyhood spent near British naval headquarters during the war with France; educated at Warminster and Winchester (1807—1811) and at Corpus Christi College, Oxford (1811—1814), when he came under the influence of the writings of S. T. Coleridge and Wordsworth;

fellow of Oriel College (then the chief centre of philosophical and religious thought in the University) 1815; ordained 1818; married Mary Penrose 1820; lived at Laleham, on the Thames, 1819—1828, taking private pupils; elected headmaster of Rugby 1828, at a time when public opinion was largely adverse to public school education, which had remained too impervious to the new religious and social ideals of the age; set himself to reform the tone of the school and to inspire it with a sense of the obligations of Christian citizenship; active writer in the press on political and social questions 1829—1841; in conflict with the Tractarian leaders in the Church of England 1833—1836; professor of modern history at Oxford 1841, holding this office with his headmastership; died suddenly at Rugby, June, 1842.

2. *His educational standpoint.* The aim of education a union of moral and intellectual excellence. Education must therefore, he held, have a religious basis; and, upon a foundation of liberal culture (for which, he believed, the classics, if taught by one fully acquainted with modern history and literature, had been proved the best vehicle), must prepare for subsequent professional and civic duties, but without premature specialisation. Education in a public school better (for most boys) than private tuition. The moral dangers of school life aggravated in boarding schools, which however formed an historic and characteristic part of English higher education and should be preserved on account of the value of their traditions, but needed a new moral impulse and internal reform. In such reform, the personality of the teacher the prime force. He therefore needs the support of a high professional status, freedom of utterance upon matters of personal conviction, immunity from interference by a local board, and clearly defined liberty of action within a sphere assigned to him (1) if a headmaster, by the Governing Body or the State and (2) if an assistant, by the headmaster. The need next in importance to the personality of the teacher a good moral tone in the school community, the social influence of which is valuable in

the formation of character. Such a tone may be promoted by skilful organisation of school life; by the careful selection of pupils and the withdrawal of those whose influence is unsuitable; by entrusting responsibilities in self-government to the different categories of boys graded according to age and standing; by personal guidance by the masters, and by a wise system of rewards and punishments.

The other necessary factors in good education are (1) a well-planned curriculum, aiming at the creation of a desire for knowledge and at the imparting of a right point of view, and (2) the use of methods of instruction which stimulate self-activity of mind, train the power of self-expression, and adjust themselves to the individual needs of different temperaments and types of mind. A national system of education should consist of grades of school corresponding to the main social groups in the national life, but this (in his view, best a three-layer) grading is hurtful if class-prejudice impairs the sense of mutual obligation to the collective interests and life of the nation. The two lower grades of such a national system of education (*viz.* the elementary and the middle secondary schools) the State must organise and, in part, provide. The highest grade is best left as a group of endowed foundations, virtually self-governing and free to differentiate but supervised by the Central Authority and, in case of special merit, honourably recognised by the Crown.

3. *His educational antecedents.* Arnold adopted many of his educational methods from Winchester, and many of his educational ideals from Oxford. He was not the creator of the educational organisation of Rugby (Thomas James, headmaster 1778-1794, an Etonian, had raised the school to the first grade a generation before), and his ideas on school-government owed much to the experiments made by Thomas Wright Hill, a private school-master at Birmingham, whose son in 1822 published "Plans for the government and liberal instruction of boys in large numbers." Arnold's methods of teaching

also showed the influence of the book, *Practical Education*, published by Maria and Richard Lovell Edgeworth in 1798, and of Joseph Priestley's *Lectures on History and General Policy*, published in 1788, which Arnold read as a boy at Warminster. Bell and Lancaster's monitorial system (imperfectly adapted to secondary school conditions by John Russell, headmaster of the Charterhouse, 1811—1832) had also suggested some ideas to Arnold. His unique influence in English public school reform was less due to intellectual originality than to his personality, courage, and educational insight, to which his sudden and early death and Stanley's life of him drew national attention.

4. *His educational influence.* Through his pupils (especially Stanley, his biographer, and Thomas Hughes, the author of *Tom Brown's School-days*), and through the work and writings of his son Matthew, he was the founder of a school of educational thought which emphasised the psychological influence and the character-forming power of a vigorous school-community. This view has counteracted the tendency to think too exclusively of the intellectual side of school life and of the purely didactic part of a teacher's work. Arnold's influence in this direction has been strong (especially during the last ten years) in the new developments of English secondary education and (though much less effectively) in elementary education also. His analysis of the importance of the influence of the school community has been one of the three most distinctive contributions which England has made to the educational thought of the world. Locke, Arnold, and Herbert Spencer are the three English educational writers who have had most influence abroad.

Arnold won over to the support of the public-school system the new upper middle class which (especially in the North of England) had become wealthy through industrial and commercial prosperity. His success at Rugby led, after his death, to the establishment of a number of new boarding schools on the model of the older public schools (*e.g.*, Cheltenham 1841, Marlborough

1843, Rossall 1844, Wellington 1853). He was instrumental in raising the age of entrance to the public schools, in the growth of preparatory schools, and in deferring the age of entrance to the older Universities.

He broadened the ideal of classical education, and (by the general direction of his influence rather than by actual precept) gave new prestige to history, English literature, and mathematics in the public school curriculum. It was in part due to him that religious instruction became more real and more carefully considered in English secondary schools. His influence strengthened the school of thought which inclines to un denominational Christian teaching as the basis upon which religious instruction may be retained in schools attended by pupils drawn from a variety of religious bodies. His memory has tended to prolong the custom of preferring clergymen as headmasters of the public schools.

He won for the headmasters of the public schools greater freedom from interference on the part of governing bodies, and in some degree vindicated the political independence of the teaching profession. He increased the prestige of the endowed schools and strengthened their position against any intrusive form of control by the State.

His success retarded (unintentionally on his part) the effective re-organisation of English secondary education upon a local basis, as he made it customary (in circles in which another practice had been usual) for boys to be sent away from home to distant boarding schools. His single handedness in the moral reform of the public schools was, in ignorance of the full facts of the case, inadvertently exaggerated by Stanley on the strength of a complimentary letter from Dr. Moberly, headmaster of Winchester. The effects of his personal influence upon the mind and outlook of a sensitive boy (in Stanley's own case, excellent) were seriously questioned by many other competent observers, *e.g.*, J. R. Seeley, C. H. Pearson, A. G. Butler, and A. H. Clough. But, when all is said, Arnold stands out as the most heroic figure in English secondary education in modern times.

## REFERENCES.

- Dean Stanley. *Life of Arnold*, especially chapter iii.  
 Thomas Arnold. *Miscellaneous Works*, especially sections vii. and viii.  
 J. J. Findlay. *Arnold of Rugby*, 1897.  
 Matthew Arnold. "Rugby Chapel" in his *Poems*.  
 T. Hughes. *Tom Brown's School-days*.

## The Educational Endowments of Secondary Schools: The Charity Commission.

1. Educational endowments are especially characteristic of the United Kingdom. They have had in many cases a continuous history for centuries. Endowed schools form an intermediate class between the category of schools wholly maintained from public moneys (rates or government grants) and the category of schools under private management. They are, *quâ* "educational charities" under the supervision of the State but, subject to the observance of the trusts which govern them, independent in their administration.

2. Endowments for education are gifts for "charitable purposes" in the legal sense and are vested in Trustees. They may consist of personality or of land. In regard to the latter there are restrictions. From feudal times legislation was directed against the "alienation of land in mortmain" (*in mortua manu*), *i.e.*, to a Corporation, in order to prevent an accumulation of land in the hands of the great religious bodies which would interfere with the free circulation of property as is requisite in the public interest. But the Crown was in the habit of granting licenses for alienation of land in mortmain, and this power was confirmed by the Mortmain Act, 1696, in view of the advantage which learning derived from the granting of land for the support of schools and colleges. There are numerous statutory exemptions from the Law of Mortmain, *e.g.*, under the Public Schools Act, 1868, the governing bodies of Eton, Winchester, Westminster, Charterhouse, Harrow, Rugby, and Shrewsbury schools

may hold land for the purposes of these schools without license in mortmain. The law of mortmain is now consolidated in the Mortmain and Charitable Trusts Act, 1888, Part 1.

3. The permanence of charitable trusts (including educational endowments) is assured upon prescribed conditions by a series of statutes. The King, as *paterfamilias*, is protector of all charities. His officer, the Attorney General, has the duty of taking proceedings which may be needed on behalf of them. By a supposed delegation of Royal authority to the Chancellor, the latter's Court (Chancery) has jurisdiction in respect of charitable trusts. This jurisdiction has devolved upon the Chancery Division of the High Court of Justice. By a series of Acts, Parliament has assigned to the Charity Commissioners and to the Board of Education the duty of regulating and supervising charities in order that their application may be kept in suitable adjustment to the changing needs of the population. These Acts, which have made it possible for educational charities to survive in England, are the outcome of a desire to retain historical continuity without stagnation, and to avoid the centralisation of all educational resources in the hands of the State. They amount to an administrative invention of great value.

4. In the eighteenth century, French public opinion became hostile to educational endowments as obstructive to progress and wasteful. Turgot recommended their absorption by the State, and Adam Smith (*Wealth of Nations*, 1776) shared his view. French educational endowments were swept away at the Revolution. The English survived, some of the chief of them being reformed in their administration by the trustees concerned. Under the influence of Bentham, Brougham secured in 1818 the appointment of a Commission of Inquiry into Educational Charities. The Commissioners continued their labours till 1837. In 1853, the Charitable Trusts Act was passed. This constituted the Charity Commission with powers of conducting inquiries into the condition

and management of charities, and, where necessary, of framing new schemes for their better application.

The objects of the Charitable Trusts Acts, 1853—1894, are “(1) to supplement the means provided by founders for giving effect to their intentions where those means are inadequate to give full effect to the purposes of the foundation; and (2) to protect the property of each charity from waste and loss and so to preserve it for the purpose to which it was dedicated by the founder.” The object is to steer a middle course between the maintenance of a purpose which has become obsolete, and the transference of the income of a charity to an end remote from the founder’s intention. The first would be wasteful and in some cases actually injurious to the public interest; the second would disturb confidence in the permanence of endowments and deter intending donors from founding new charities.

5. The chief Acts which deal with the endowments of secondary schools are, besides the Charitable Trusts Acts, The Public Schools Acts, 1868—1873, dealing with Eton, Winchester, Westminster, Charterhouse, Harrow, Rugby, and Shrewsbury schools.

The Endowed Schools Acts, 1869—1889, affecting all endowed schools (with a few exemptions including the above-mentioned schools).

6. By the Board of Education Act, 1899, His Majesty in Council may, by order, transfer to, and make exercisable by, the Board of Education any of the powers of the Charity Commissioners, and effect has since been given to this provision by a series of Orders in Council.

#### REFERENCES.

- A. H. H. Maclean. *The Law concerning Secondary and Preparatory Schools* (London: Jordan, 1909).
- Report of the Royal Commission (Duke of Newcastle’s) on The State of Popular Education in England, 1861, vol. i., part v., pp. 459 ff.
- Report of the Royal Commission on Secondary Education in England, 1895; vol. i., pp. 19—26, 39—40.
- Graham Balfour. *Educational Systems of Great Britain and Ireland*, pp. 143—152.



## The Reform of Secondary Education, 1861-1869

### (1) INQUIRY INTO AND REFORM OF THE GREAT PUBLIC SCHOOLS.

In 1861 Lord Palmerston's Government appointed a Royal Commission (Lord Clarendon, chairman) to inquire into the revenues, management, and curriculum of Eton, Winchester, Westminster, Charterhouse, St. Paul's, Merchant Taylors', Harrow, Rugby, and Shrewsbury, the nine chief Public Schools. Of these, Eton and Winchester had been exempted from the Charitable Trusts Act, 1853, and all but Shrewsbury from the Grammar Schools Act, 1840. Three causes led to the inquiry: (1) Public dissatisfaction with the intellectual standards reached by Public School boys of ordinary abilities; (2) the importance attached to scientific and modern studies, which the Public Schools, with their classical curriculum, were known to neglect; and (3) a desire that the teaching in the English Public Schools should be as good as that in the corresponding grade of schools in Germany and France. The inquiry was welcomed by a large proportion of the Public School masters. Reforms in the course of study had already begun. Official inquiry, it was felt, would hasten their extension. In their report, published in 1864, the Commissioners spoke in terms of high praise of the discipline and moral instruction of the schools, and recorded the important progress made during the preceding twenty-five years: "The course of study has been enlarged, the methods of teaching improved, the proportion of masters to boys increased. The advance in moral and religious training has more than kept pace with that in intellectual discipline. The old roughness of manners has in great measure disappeared. The boys are better lodged and cared for, and more attention is paid to their health and comfort. Among the services which the Public Schools have rendered is the maintenance of classical literature as the staple of English education, a

service which far outweighs the error of having clung to these studies too exclusively. A second and greater service is the creation of a system of government and discipline for boys, the excellence of which has been universally recognised and which is admitted to have been most important in its effects on national character and social life. But in their course of study, sound and valuable in its main elements but wanting in breadth and flexibility, there are defects which destroy in many cases, and impair in all, its value as an education of the mind; and which are made more prominent at the present time by the extension of knowledge in various directions and by the multiplied reforms of modern life. These schools, in very different degrees, are too indulgent to idleness, or struggle ineffectually with it, and consequently send out a large proportion of men of idle habits and empty and uncultivated minds." The Commission recommended reform of the Governing Bodies and of the courses of study. In addition to the study of classics and to religious teaching, every boy should receive instruction in mathematics, in either French or German, in at least one branch of Natural Science, and in either drawing or music. Specialisation should be permitted in the case of elder boys. Promotion should depend upon progress not only in classics and divinity, but in mathematics, modern languages, and science. Every boy, before admission, should be required to pass an entrance examination and to show himself well-grounded for his age in classics and arithmetic and in the elements of either French or German.

In 1868 Mr. Disraeli's Government passed the Public Schools Act, which dealt with Eton, Winchester, Westminster, Charterhouse, Harrow, Rugby, and Shrewsbury. The Act required the existing governing body of each school to frame a statute for the constitution of a new (*i.e.*, a more representative) governing body. These statutes were to be submitted in draft to a body of seven special commissioners appointed by the Act for a term of two (or three) years. If approved by the special com-

missioners, the statutes were to be laid before the Queen in Council for ratification. Any petitions against the proposed new statutes were to be referred to five members of the Privy Council, including two members of the Judicial Committee. Each new governing body, when constituted, was given full power to make, alter, or annul regulations as to school-fees, numbers of pupils, curriculum, religious instruction, etc. The headmaster of the school was to be appointed by, and hold his office at the pleasure of, the governing body: all other masters were to be appointed by, and to hold office at the pleasure of, the headmaster.

Thus the State retained no power of continuous supervision over these important schools. The Education Department was entrusted with no responsibilities in regard to them. There was no provision for Government inspection. The policy adopted was one of decentralisation. The new governing body of each school was made virtually independent. The headmaster was made responsible to the governing body. The assistant masters were given no appeal against the decisions of the headmaster.

## (2) SCHOOLS INQUIRY COMMISSION, 1864—1868.

In 1864 Lord Palmerston's Government appointed a Royal Commission (Lord Taunton, chairman) to inquire into the education given in schools not comprised within the scope of (a) the Duke of Newcastle's Commission on the State of Popular Education, 1858—1861, and (b) the Public Schools Commission, 1861—1864. Dr. (afterwards Archbishop) Temple and W. E. Forster were members of the Commission, and Mr. H. J. Roby secretary. For this Commission, Matthew Arnold reported on secondary education in France, Germany, Switzerland, and Italy. Messrs. James Bryce, T. H. Green, and Joshua Fitch were among the assistant commissioners.

The Commissioners reported the most urgent educational need of England to be "good schools which would carry education up to the age of 14 or 15. The artisans,

the small shopkeepers, the smaller farmers are in many places without any convenient means of educating their children at all, and, still more, often have no security that what education they do get is good." The secondary educational system should also include schools of two higher grades, viz., (i.) schools with a leaving age of about 16, and (ii.) schools with a leaving age of 18 or 19. The Commissioners estimated that, in towns, provision should ultimately be made for the secondary education of sixteen boys per thousand of the population, half at least of this being assigned to the requirements of schools with a leaving age of 14 or 15.

The Commissioners drew the following inferences from their inquiry into the systems of secondary education in Canada, Scotland, France, Prussia, and Switzerland: (1) "Before all things the wishes of the parents and of the people at large must be met. The management should in some reasonable measure be in their hands. The people perhaps cannot give guidance, but they can give life, which is even more valuable than guidance." (2) The classics are still the best instruments for the highest education, but the time given to them must be curtailed for the admission of other studies, and non-classical schools must be recognised besides the classical. (3) Liberty of conscience must be fully respected. (4) The absolute necessity of better organisation of the English educational system to prevent waste of power and to secure greater precision of aim.

The Commissioners endorsed the opinion that the instruction of the girls of the middle classes in England was "important to the very last degree." They found the state of their education on the whole unsatisfactory: "Want of thoroughness in foundation; want of system; slovenliness and showy superficiality; inattention to rudiments; undue time given to accomplishments, and those not taught intelligently or in any scientific manner; want of organisation." The Commissioners found, however, much good in the existing girls' schools and much improvement already going on in them. They concluded

that the main and leading elements of instruction should be the same in secondary education for boys and girls, and that far more ample facilities should be given to women able and willing to carry on their studies to a higher point. But "the complete assimilation of the education of the two sexes, such as prevails in America, should not be attempted." The Commissioners laid down "the principle of the full participation of girls in educational endowments," and cordially approved the plan for the establishment of colleges for women at the Universities.

The Commissioners recommended (a) two central authorities, (i.) an enlarged Charity Commission to supervise educational trusts and to appoint inspectors of secondary schools for each local area (Registrar-General's divisions), and (ii.) an examining authority (on which the Universities should be represented) to appoint courts of examiners of secondary schools for each county and to conduct examinations of candidates for the office of schoolmaster; (b) provincial authorities consisting either (i.) of the Government Inspectors in each of the Registrar-General's divisions, with six or eight Crown-nominated local residents associated with them, or (ii.) of the chairmen of Boards of Guardians within the County, with an equal number of additional members nominated by the Crown, or (iii.) of members elected by the ratepayers (two for each Union), with half as many additional members nominated by the Crown, or (iv.) for towns of 100,000 inhabitants and over, of separate Boards consisting of members named by the trustees of the endowed schools and an equal number added by the Town Council. These provincial authorities to be required (i.) to fix the grades of all schools in their district in relation to one another; (ii.) to propose to the central authority schemes for the better regulation of educational endowments.

The Commissioners further recommended that the Governors of each school should (subject to the limits prescribed for the grade of the school) determine the subjects of its instruction. The Governors would appoint

the headmaster. The headmaster would appoint his assistants and have power of dismissing them at discretion. The headmaster would be supreme over the discipline of the school and regulate the choice of text-books and methods of teaching. Rates for secondary education not to be made compulsory, but any town or parish to have power, if it wished, to rate itself for the erection (not maintenance) of a secondary school, and to pay the school-fees of meritorious boys selected from the elementary schools.

The Commissioners emphasised the annual examination of schools as being "the pivot of all the improvements" recommended by them. Concert between the Universities in the conduct of the examinations necessary. The Commissioners therefore proposed the creation of a council of examinations (twelve members, two selected by each of the Universities of Oxford, Cambridge, and London, and six appointed by the Crown). This council to direct examination of schools and to appoint examiners. A separate court of examiners for each county except for schools of the first grade. The court of examiners in each county to be presided over by the official district commissioner appointed by Government. The Council also to examine and grant certificates to candidates for the office of schoolmaster, and to publish an annual report "giving as complete a picture as possible of what is being done and what is still needing to be done" in English secondary education. Efficient private schools to be allowed to register themselves for inspection and to have the right of sending in their scholars to county examinations.

### (3) ENDOWED SCHOOLS ACT.

In 1869 Mr. Gladstone's Government passed the Endowed Schools Act, in furtherance of the recommendations of the Schools Inquiry Commission and for "putting a liberal education within the reach of children of all classes." The omissions in this Act are more significant than its actual provisions. It set up no local authority.

The part of the Bill which provided arrangements for the obligatory examination of pupils in endowed schools and for the registration of teachers was abandoned in the House of Commons at an early stage. Thus the pivot of the Schools Inquiry Commission's plan was cut off. The Act appointed three Endowed Schools Commissioners with power to initiate schemes for the better application of educational endowments. The Act required that in all schemes provision should be made, so far as was conveniently possible, "for extending to girls the benefits of endowments." No endowments less than fifty years old were allowed to be touched by the Commissioners without the consent of the governing body, and similar protection was given to schools connected with cathedrals and with the Society of Friends and the Moravians. The endowments of the seven Public Schools and of public elementary schools were excluded from the control of the Endowed Schools Commissioners. Any pupil to be exempt, at his parent's written request, from religious observance or instruction. Except in the case of certain endowments, masters not to be required to be in Holy Orders. Any scheme framed by the Endowed Schools Commissioners to be sent to the Education Department for approval before being submitted to the Queen in Council. Petitions from persons affected by the scheme to be considered by five members of the Privy Council, including two members of the Judicial Committee. The Privy Council might direct that a scheme petitioned against should be laid before Parliament. Either House of Parliament might present an address against the whole or part of any scheme; in which case it was to be dropped or altered. When finally approved by the Queen in Council, the scheme acquired the force of an Act of Parliament.

Within six years the Endowed Schools Commissioners obtained Parliamentary sanction for 235 schemes. Their action provoked much resentment, and the Endowed Schools Act, 1874 (under Lord Beaconsfield's Government) transferred the powers of the Endowed Schools Commissioners to the Charity Commissioners. Subsequently the

Board of Education Act, 1899, and Orders in Council made hereunder, transferred all powers conferred on the Charity Commissioners by the Endowed Schools Acts to the Board of Education.

The experience under the Endowed Schools Acts showed (1) that English secondary education could not be reformed piecemeal without the hearty co-operation of the first grade non-local schools on the one hand and of central and local authorities for elementary education on the other; (2) that the national aspect of the question was as important as the local and called for a central authority for national education; (3) that the Schools Inquiry Commissioners had underrated the practical objections to hard and fast grading of schools; (4) that the Schools Inquiry Commissioners under-estimated the true cost of efficient secondary education in each of the three grades, with the result that the financial provision made was insufficient; (5) that the continuous influence of a body of Government Inspectors, co-operating with local authorities and with the governors of endowed schools was indispensable to the working out of plans of educational re-organisation adjusted to the needs of different districts. The Endowed Schools Commissioners had no such inspecting staff, and became a little doctrinaire through their detachment from local knowledge and absorption in legal technicalities.

Thus, during the years 1861—1869, a great opportunity for kindling a sense of unity throughout English secondary education was lost. Good was done by revision of schemes of endowments and by the insertion of clauses requiring periodical examination by some external authority; by the recognition of the educational claims of girls; and by insistence upon the conscience clause. But, in spite of the ability devoted to the problem, the intellectual and social results of the legislation were disappointing. It produced no strong intellectual movement and inspired no clear sense of national obligation. The causes of failure lay (1) in the timid separatism of the wealthier classes; (2) in middle class distrust of Government action in



secondary and higher education; (3) in the lack of any organised system of responsible local government; (4) in the intellectual and social opportunism of the period and the absence of a clear ideal of social relationships; (5) in the disbelief (among the educated classes) in the possibility of a liberal curriculum detached from classical studies; and (6) in failure on the part of any statesman of commanding influence to impress upon the public mind the supreme importance of national education for the economic and social well-being of the State.

#### REFERENCES.

- Public Schools Commission Report, 1864, especially vol. i.  
 Schools Inquiry Commission Report, 1868, especially vol. i.  
 Matthew Arnold. *Schools and Universities on the Continent*, 1868.  
 Graham Balfour. *Educational Systems of Great Britain and Ireland*, pp. 146 ff.

### The Struggle for Elementary Education, 1847-1870.

This period is one of conflict between different views (1) as to the scope of elementary education, and (2) as to what authority should exercise ultimate control over it.

With regard to the scope of elementary education, one group of thinkers (*e.g.*, Sir J. Kay-Shuttleworth and Charles Dickens) laid stress on the need for humanising influences, combined with practical handwork and developed according to the needs of the pupils by teachers adequately prepared for their duties and enjoying freedom of initiative and experiment; another group of thinkers (Robert Lowe) attached chief importance to technical dexterity in reading, writing, and arithmetic, this dexterity to be tested by examination of individual pupils conducted annually by Government inspectors. The results of these examinations to determine the stipends of the teachers.

With regard to the authority which should ultimately control elementary education, there were four different opinions, *viz.*:—

- (1) Control of teachers and curriculum to be vested in

the various religious bodies, each managing an exclusive system of schools and receiving (so far as necessary) financial aid from the central Government.

(2) Exclusion of religious teaching from the regular curriculum of all schools receiving aid from public funds. Control of teachers and curriculum to be in the hands of the central Government aided by advisory local committees, or in the hands of locally elected bodies (*ad hoc* or municipal) receiving grants from Government supplemented by local rates.

(3) All elementary education to be left to voluntary enterprise without aid or control from the State or local authorities.

(4) The management of each school to be in the hands of persons representing the local subscribers. The Government to attest the efficiency of the instruction in secular subjects. Government aid to efficient elementary schools of all types, but not beyond half the cost of annual maintenance. In boroughs, municipal councils to have power, but no obligation, to make grants out of local rates in aid of school fees of children attending any efficient elementary school. The parent to have the right of withdrawing his child from religious instruction (conscience clause). Training of teachers to be conducted by denominations or voluntary associations, with aid from the State.

During the period 1847–1869, each of these four views underwent a change.

(1) The claim for denominational monopoly in the control of elementary education was gradually abandoned (a) through recognition of the civic claim to secure educational efficiency; (b) through the impracticability of recognising all denominations and the injustice of preferential treatment of any; (c) on account of increasing dependence upon grants from public moneys to which all taxpayers contributed.

(2) Plans for the complete secularisation of elementary schools failed to win more than partial acceptance, (a) owing to diversity of judgment among the advocates of

secular schools as to the basis and limits of moral instruction; (b) through the resistance of the Evangelical party in the Church of England, the Wesleyans and some other Nonconformist bodies to any divorce of religious teaching from elementary education; (c) through the growing influence of the Roman Catholic Church, especially after the immigration of Irish families into England at the time of the Irish famine, 1846--1847; (d) through a recognition of the value of the services rendered to national education by the denominational schools, and unwillingness (on social and economic grounds) to discard their aid.

(3) The plan of leaving all education to purely voluntary enterprise was abandoned (a) on account of the proof, after extended inquiry, of alarming deficiencies in the provision of elementary schools and the educational defects of non-inspected private schools of the elementary grade; (b) through realisation of the necessary expense of elementary education on a national scale, and through proof of the benefit already received from State aid and inspection; (c) through general admission that the principle of *laissez faire*, however beneficial in liberating trade from obsolete restrictions, was not applicable to all parts of the social problem which had then to be grappled with in England; (d) through increasing knowledge of the results of State-aided education in Germany and the United States; (e) through the difficulty of applying the principles of voluntarism to those parts of national education which largely rested upon ancient endowments which were too useful to be confiscated, but which, being regulated and protected by the State, interfered with the conduct of education on self-supporting lines.

(4) The application of rate aid to elementary education was seen to involve (a) the constitution of a local authority, with right to discriminate, on grounds of comparative efficiency, between the different schools in its area which claim assistance from rates; (b) the question whether such a local authority should have power to establish and maintain schools of its own, with resultant

difficulties as to competition with other schools and as to the form of religious instruction to be given in its own schools; and (c) a decision of the ultimate questions (i.) whether the provision of efficient elementary schools for the whole population should be obligatory by law, and, if so, obligatory on whom; and (ii.) whether every parent should be under statutory obligation to send his child to school, and, if so, whether he might be obliged to send his child to a denominational school to which he objected, or to pay such fees as the voluntary organisers of the schools might fix?

The perception of these various difficulties gradually led to a fairly general agreement upon a course of educational policy which would (a) retain State aid and State inspection; (b) require the universal provision of efficient elementary schools; (c) allow each area to establish a local education authority with rating powers, and compel it to do so in case of the failure of voluntary effort to furnish the needed supply of schools; (d) give continued recognition to efficient elementary schools under denominational management as one factor in national education; and (e) provide for artisans and the lower middle classes more extended opportunities for the prolonged education of their children.

The substance of this agreement was embodied in the Endowed Schools Act, 1869, and the Elementary Education Act, 1870.

These Acts were preceded (a) by a long conflict of opinion (especially vigorous in Lancashire and the West Riding); (b) by increasing activity on the part of the Committee of Council on Education in pressing for a conscience clause in all elementary schools; (c) by an attempt on the part of Mr. Robert Lowe (Revised Code, 1861) to increase the efficiency (or, failing that, to reduce the expense) of elementary education by the principle of payment by results; (d) by official investigation into the state of popular education in England by a Royal Commission, 1858—1861, under the chairmanship of the Duke of Newcastle; and (e) by numerous subsequent local

inquiries the results of which proved grave deficiencies in the supply of sound elementary education in the great cities.

#### REFERENCES.

- Report of Royal Commission of Inquiry into the State of Popular Education in England, 1861, especially vol. i.  
 Francis Adams. *The Elementary School Contest in England* (London : 1882), especially chapters iv. and v.  
*Crosby Hall Lectures in Education* (London : 1848), especially Lectures I. (Edward Baines) and V. (Edward Miall).  
*Education in the Nineteenth Century* (Cambridge, 1901), especially chapter iii. by Sir Joshua Fitch.  
*Special Reports on Educational Subjects*, vol. 2. Article by M. E. Sadler and J. W. Edwards on "Government Codes and Regulations for Elementary Education before 1870."  
 Graham Balfour. *Educational Systems of Great Britain and Ireland*, pp. 12 ff.

### The Elementary Education Acts, 1870-1880, and the Growth of Secondary Education during the decade.

This decade is important (1) through the establishment of local education authorities in England; (2) through the requirement of the universal provision of elementary schools and the imposing on every parent statutory obligation to secure the elementary education of his children; (3) for the growth of advanced departments in certain elementary schools whereby the elementary school system entered the province of secondary education; (4) for the first systematic efforts to organise secondary and University education for girls; (5) for the gradual revision of the schemes of old endowments for secondary education; (6) for the establishment of University Colleges in industrial centres; (7) for the decisive assertion of the claims of scientific studies in all grades of education.

#### I.

*Elementary Education Act, 1870.* (Bill introduced in the House of Commons, on February 17th. 1870, by Mr. W. E. Forster, on behalf of Mr. Gladstone's Government; fundamental changes

made in Bill on going into Committee, June 16th. Further changes made in subsequent debates. Royal assent given to Bill on August 9th.)

This Act (1) required "for every school district a sufficient amount of accommodation in public elementary schools to be available for all the children resident in the district, for whose elementary education efficient and suitable provision is not otherwise made." Existing school accommodation to be investigated by the Education Department, which was charged with the duty of determining how much further accommodation was necessary in each district. Voluntary effort given first opportunity of supplying deficiency. Failing sufficient voluntary provision, or on application of the majority of ratepayers or of the borough council, the Education Department to order formation of a School Board (establishment of School Board for the whole of London made obligatory by the Act). Triennial term of office; cumulative voting for protection of minorities (every voter having as many votes as there were seats on the Board, but being allowed to give them all to one candidate or to distribute them as he preferred); women, if independent ratepayers, to have a vote equally with men in the election of School Boards. Anyone, man or woman, resident or non-resident in the district, lodger or householder, to be eligible for election to the School Board, if of full age and subject to no penal disqualification.

School Boards were given power to acquire land for school purposes; to issue a precept on the local rating authority (council in boroughs, overseers in parishes) for such sums as their work might require from local rates (in case of default on the part of the local authority the School Board was given power to levy a rate direct); and to borrow money (subject to the consent of the Education Department) for building or enlarging schools. School Board accounts to be audited by the Poor-Law Board auditor for the district, *i.e.*, by a representative of the central authority for local government.

Power given to any School Board, with consent of

the Education Department, to make bye-laws requiring compulsory attendance at school of all children between 5 and 13, subject to the conditions of the Factory Acts.

School-fees at Board Schools to be fixed by the School Board, with the consent of the Education Department, but might in cases of poverty be wholly or partly remitted by the School Board. Establishment of free schools permitted on certain conditions. School Board allowed, in cases of poverty, to pay school-fees of children attending voluntary schools in the district. [Section 25: repealed in 1876, when this power was transferred to the Guardians.]

Religious instruction no longer enforced as a condition for the receipt of the annual Parliamentary grant. Religious instruction separated from secular instruction in all schools, Board and Voluntary. In its inspections and award of grants, the State ceased to take cognisance of religious instruction. No child in any State-aided school, whether Board or Voluntary, to be compelled to attend religious instruction. School Boards left to decide whether or not they would provide religious instruction in their own schools. If so provided, the religious instruction in Board Schools to include "no religious catechism or religious formulary which is distinctive of any particular denomination" (Section 14 (2) the Cowper-Temple clause).

In the Bill as originally introduced, Town Councils in boroughs were given power of electing the School Board at their discretion; in country districts, the Vestry; the School Boards so appointed to have power of assisting existing schools, denominational or otherwise, out of rates, provided that all such schools received assistance on equal terms and that such assistance might be withheld after twelve months' notice. Owing to unwillingness to introduce religious controversies into municipal affairs, and through distrust of the impartiality of some municipal councils, an *ad hoc* local education authority was substituted, rate aid to denominational schools forbidden, and, in compensation, Parliamentary grant to all schools

increased. Other changes made in the Bill during the Parliamentary discussion strengthened the power of the central authority; introduced the cumulative vote; constituted one School Board for the whole of London; raised the limit of compulsory school attendance from 12 to 13; prescribed the Cowper-Temple clause as defining the limit of religious instruction in Board Schools; required religious instruction in all schools to be given at the beginning or end of a school meeting, with a view to convenient withdrawal of children without any written application on the part of the parent; and removed religious instruction in all schools from the official cognisance of the Government Inspector.

The Elementary Education Act, 1870, thus established what has been called the dual system of elementary education, viz. (a) non-denominational or secular schools provided by local authorities and maintained out of rates and Parliamentary grants; (b) denominational or non-denominational schools (various categories), built by subscriptions, aided by Parliamentary grants, not by rates, and controlled (subject to the rules of the Education Department) by non-elected managers. Public elementary schools were thus divided into Board schools and Voluntary schools.

There was a presupposition on the part of many that Voluntary schools would be gradually superseded by Board schools everywhere, and that universal non-denominational instruction would settle the religious difficulty. The cost of elementary education was seriously underestimated.

*Elementary Education Act, 1876.* This Act, passed by Lord Beaconsfield's Government, was the first to make it the duty of every parent to educate his child. It enacted (Section 4) that "it shall be the duty of the parent of every child to cause such child" (viz., from 5 to 14 years, unless otherwise exempt under the Factory Acts or through having complied with local bye-laws as to school attendance) "to receive efficient elementary instruction in reading, writing, and arithmetic; and if



such parent fail to perform such duty, he shall be liable to such orders and penalties as are provided by this Act." The adoption of bye-laws enforcing attendance at elementary schools was permitted in non-School Board districts to School Attendance Committees appointed annually (a) in boroughs, by the Town Council, (b) in parishes, by the Guardians of the Union in which the parish was situate. The Act made it a statutory offence on the part of any employer to take into his employment (a) any child under 10 years of age, and (b) any child between 10 and 14 who had not complied with certain educational requirements. But (a) children residing more than two miles from a public elementary school were exempt; (b) employment at hours which would not interfere with the efficient elementary education of the child was permitted; and (c) exemption from school attendance (for not more than six weeks in a year) was permitted for necessary agricultural operations. The Act gave increased financial assistance to schools. The annual Parliamentary grant had hitherto been required to be met by an equal amount, penny for penny, from local contributions, school fees, or other forms of local income, including rates. In future, the Parliamentary grant, up to 17s. 6d. per child in average attendance, was not required to be met by a corresponding sum from local sources. The limit 17s. 6d. was taken as half the estimated average cost of a child's schooling.

*Elementary Education Act, 1880.* This Act, passed by Mr. Gladstone's Government, made it obligatory on all School Boards and School Attendance Committees to pass bye-laws for compulsory attendance. In their default, the Education Department was given power to make bye-laws for the district. Complete attendance at school was enforced up to 10 years of age.

## II.

The struggle in elementary education, 1870—1880, turned on three chief points: (a) whether attendance at school should be made universally obligatory by the imposition of statutory duties on parents and employers

of young children; and, if so, within what limits of age; (b) whether the enforcement of school attendance should be prescribed by law in districts where the only existing elementary schools were not under the management of an elected local authority; and (c) whether schools under denominational management should remain part of the national system of education aided out of public funds.

The outcome of the struggle was (a) to require everywhere a minimum school attendance, which might be further extended within certain limits where local opinion was favourable; (b) to recognise (partly for reasons of economy, partly in order to satisfy divergent ideals of educational influence) schools under denominational management as an important factor in the national system; but (c) to insist upon higher standards of efficiency in all public elementary schools, and to assist the managers of voluntary schools by a general increase in the Parliamentary grant payable to Voluntary and Board schools alike.

### III.

In secondary education, considerable advance was made during the decade:

(1) Many School Boards established day science classes (inspected and aided by the Science and Art Department) for elder pupils in attendance at the Board Schools. In 1872 (largely in consequence of the evidence given before the Royal Commission on Scientific Instruction, which began its work in 1870) the Science and Art Department offered special grants for organised combinations of science classes (to which the name Organised Science Schools was given), providing a continuous and systematic course of scientific training at the close of the ordinary day school course. These gave a form of secondary education which (though unduly specialised and defective on the side of liberal culture) served as a valuable supplement to the instruction given under the Elementary Education Acts. Many School Boards thus began, without the official cognisance of the Elementary Education Department, to

provide what the Schools Inquiry Commission had designated "third grade secondary education."

(2) The Endowed Schools Commissioners up to 1874, and thenceforward the Charity Commissioners, continued to re-model the schemes of local endowed secondary schools, extending their curriculum, enforcing the duty of external examination, and in some cases applying endowments to the needs of girls.

(3) The movement for the secondary and University education of girls rapidly extended [for details, see Section on The Education of Girls and Women].

(4) The course of legislation for elementary and secondary education in Scotland during the decade had considerable influence on English opinion. The Scotch Education Act, 1872, created School Boards in every parish and burgh. Practically the whole of the elementary schools in Scotland came under the direct management of the Boards, but a small number of denominational schools remained outside and still receive Parliamentary grants direct from the Scotch Education Department, but no share in local rates. Religious instruction was left to the discretion of each School Board, subject only to the condition that it must be given at the beginning or end of each school meeting. Practically all the School Boards made the Bible and the Shorter Catechism the basis of their religious instruction. A separate Committee of the Privy Council for Education was appointed for Scotland. The Scotch Education Act, 1872, brought under the School Boards many burgh schools which gave secondary as well as elementary education. Thus, from the first, the Scotch School Boards had concern with secondary as well as with elementary instruction. The Scotch Education Act, 1878, allowed School Boards to make grants out of rates towards the expense of building secondary schools.

#### REFERENCES.

- Edwardes Jones and Sykes. *The Law of Public Education*. Elementary Education Acts, 1870, 1876, 1880.  
 Verbatim Report of the Debate in Parliament on the Education Act,

1870. Reprinted from Hansard by the National Education Union, 1870.

Final Report of the Commissioners appointed to Inquire into Elementary Education Acts, England and Wales, 1888. (Especially chapters iii. and v.)

Francis Adams. *The Elementary School Contest in England* (London, 1882).

## Development of Elementary Education 1880-1895.

1. The chief changes during this period were :—

- (1) The entrusting, in 1880, of educational powers (limited to technical education in a wide sense) to the County and County Borough Councils established by the Local Government Act, 1888. This legislation marks the drift of public opinion from an *ad hoc* authority to a unified municipal authority for education in each area.
- (2) The provision of largely increased funds from the central authority (under the Local Taxation (Customs and Excise) Act, 1890), which the new County and County Borough authorities were permitted to use in the furtherance of technical education.
- (3) The beginnings of systematic education for afflicted children.
- (4) The increasing departure from the principle of individual examination in assessing the efficiency of elementary schools.
- (5) The recognition of University Day Training Colleges, 1890.
- (6) The requirement of drawing as a compulsory subject for all boys in elementary schools (except in infant schools), from 1890 onwards. Introduction of manual training in 1890.
- (7) The introduction of the fee-grant, 1891, which led to the virtual abolition of fees in elementary schools.
- (8) In 1893, a sweeping change in the evening school code, encouraging attendance of adolescents and

adults at evening schools by the recognition of a more liberal course of study and by changes in the conditions of grant.

- (9) The introduction of compulsory literary subjects into the curriculum of all Organised Science Day Secondary Schools in 1895.

2. Two Royal Commissions during this period had great effect upon educational policy :

(a) Royal Commission on Technical Instruction, 1880—1884. This recommended that local authorities should be given rating powers for purposes of technical instruction. At first it was proposed to confer these powers upon the School Boards, but, in consequence of the Local Government Act of 1888 and the need for constituting local education authorities which (unlike the School Boards) extended over the whole country, the duties were given to the new County and County Borough Councils.

(b) The Royal Commission (Lord Cross's) appointed to Inquire into the Elementary Education Acts, England and Wales, 1886—1888. This Commission (Majority Report) recommended: (1) rate aid to voluntary schools and the entrusting of educational powers to the County Councils, the formation of which was then contemplated; (2) continued recognition of denominational training colleges, and the establishment of day training colleges; (3) improvements in the staffing of schools; (4) introduction of moral instruction into public elementary schools as an essential condition of their efficiency; (5) elementary instruction in science in all schools; (6) organisation of technical education by the municipalities; (7) revision of the evening school system and encouragement of adult education in evening classes; (8) modification of the system of payment by results and introduction of general inspection of the tone and discipline of the school.

3. By the Local Government Act, 1888, County Councils and County Borough Councils were established throughout England and Wales. In 1889, the Technical Instruction Act gave power to the Council of any county or borough, or any urban sanitary authority, to supply or

aid in supplying technical or manual instruction, and to delegate its authority to a committee appointed for the purpose wholly or partly from its members. Aid might not be given to scholars in public elementary schools. The Department of Science and Art was made the central authority for the purpose of this Act. Technical instruction was defined by it as "instruction in the principles of science and art applicable to industries . . . . It shall not include teaching the practice of any trade, or industry, or employment. It shall include instruction in the branches of science and art with respect to which grants are, for the time being, made by the Department of Science and Art and any other forms of instruction (including modern languages and commercial and agricultural subjects) which may for the time being be sanctioned by that Department by a Minute laid before Parliament, and made on the representation of a local authority that such a form of instruction is required by the circumstances of its district."

In 1890, the Local Taxation (Customs and Excise) Act allotted to the Counties and County Boroughs in England and Wales a large but variable annual sum out of the customs and excise duties. The Counties and County Boroughs were allowed to assign any part of the residue of this grant to the purpose of technical education. The sum thus made available for technical instruction was about £700,000 a year.

The Elementary Education Act, 1891, gave a fee-grant at the rate of 10s. per unit of average attendance of children between 3 and 15 years of age to all public elementary schools on certain conditions. The effect of the Act was (a) to make the great majority of public elementary schools free schools; (b) to reduce materially the fees in the majority of the remainder; and (c) to place free public elementary education within the reach of all children for whom it was desired.

In 1893, the Elementary Education (Blind and Deaf Children) Act required School Boards and School Attendance Committees to make provision for the education of

children too blind to read the ordinary school books and too deaf to be taught in a class of hearing children.

In 1893, the new Evening School Code recognised for grant-earning purposes the attendance of persons over 21 years of age. No scholars were compelled to take the elementary subjects. Fixed grants were paid on the aggregate number of hours of instruction received. The grants were paid upon the instruction of the school as a whole instead of on the attainment of individual scholars. The new code led to a rapid increase in the attendance of adults at evening schools.

In 1895, by the new regulations of the Science and Art Department, all Organised Science Day Schools were required to combine literary or commercial instruction with instruction in science.

4. A striking characteristic of educational legislation and administration during this period is increasing regard to methods of teaching and to the internal conditions of school work. There was a reaction against a purely literary education and a strong effort for the introduction of scientific and manual training into all elementary schools as factors in a liberal curriculum. Technical education was fostered. On the other hand, the insufficiency of purely scientific instruction to furnish a liberal training in secondary schools was admitted, and literary studies were required in Organised Science Day Schools.

5. The desire for the establishment of local education authorities all over the country became irresistible. On the other hand, the extension of the School Board system to cover the whole country was not generally approved:

- (a) because in the rural districts the School Boards were elected for areas too small for the effective provision of higher elementary and secondary education;
- (b) because the growing expense of education made it desirable to unify the responsibility for the local budget in each area;
- (c) because the outlook of many School Board administrators had been confined (by the limitation of

their duties under the Elementary Education Acts) to a somewhat restricted view of their educational responsibilities;

- (d) because some School Boards had gained the reputation of extravagance and of want of sympathy with the ideals of denominational schools;
- (e) because it was felt that a complete change in local educational organisation would enlist the active interest of a wider circle of local administrators, and lead to a healthy new departure in local educational policy.

The new local authorities (County and County Borough Councils) began to show a desire to enlarge their educational responsibilities and a growing jealousy of a separate local education authority with independent powers of drawing upon the rates. Thus the current of thought began to run strongly in the direction of county and municipal authorities for all grades of education.

#### REFERENCES.

- Report of the Royal Commission on Technical Instruction, 1884.
- Report of the Royal Commission of Inquiry into the Elementary Education Acts, 1888, vol. i.
- M. E. Sadler. *Continuation Schools in England and Elsewhere*, pp. 62 ff.
- Graham Balfour. *Educational Systems of Great Britain and Ireland*, pp. 26—27, 158—159.

### Development of Secondary Education, 1880-1895.

The chief movements in English secondary education during this period were as follows:

- (1) Conflict of opinion as to whether all endowed secondary schools (with the exception, possibly temporary, of the seven great Public Schools) should be re-organised by a Government Department on a national plan, upon a non-denominational basis, and with their intellectual work controlled by examinations conducted by the central authority of the State (with University representation



upon the Examining Board). The fear of this policy led (a) to the internal reform of Winchester College, chiefly under Ridding; (b) to Thring's fight against the Endowed Schools Commissioners for freedom to develop a small endowed school at Uppingham into a great Public School; (c) to the establishment of the Head Masters' Conference, on the initiative of Mitchinson and Thring, 1869; (d) to the establishment, in 1873, of the Oxford and Cambridge Schools Examination Board (the Joint Board) for the examination and inspection of secondary schools; (e) to increased denominational activity in the improvement of secondary education.

On the other hand, the need for the re-organisation of the great majority of the smaller endowed secondary schools was patent. The proceedings under the Endowed Schools Acts went steadily forward, but left the schools without any framework of national or county organisation and without any aid from Parliamentary grants or from local rates. The result was to produce some degree of defensive joint action among a large and ill-defined group of higher secondary schools, chiefly non-local and boarding-schools; to leave them disinclined for local organisation and (through examination) somewhat vaguely allied with the older Universities. The smaller local endowed schools were practically left to their fate, and in many cases eked out their income by earning grants under the Science and Art Department.

Thus the half-hearted attempt on the part of Whig reformers to organise secondary education upon a national basis failed. It was too legal in spirit, failed to realise the need for the creation of an organised profession of secondary school masters, and established neither local authorities with powers in secondary education nor a central State authority with powers of comprehensive organisation and aid. Those who thwarted the movement had clearer insight into the conditions necessary for developing strong corporate life in each school; on the other hand, they shrank from throwing in their lot with the national system; were over-timid as to interference

with the classical curriculum; desired to preserve, so far as possible, the denominational character of English higher secondary education; and felt the pecuniary advantage of meeting the special needs of the wealthier classes.

(2) Several active School Boards, established under the Act of 1870, were endeavouring, in response to a quickly stimulated popular demand, to provide more advanced instruction in selected elementary schools. From 1867 onwards the Education Department had given grants "to encourage instruction beyond the elementary subjects." These "specific subject grants" could be earned by children who had passed the Sixth Standard. Moreover the grants of the Science and Art Department, distributed independently of those of the Education Department, conveniently provided a further revenue in aid of more advanced instruction in connexion with public elementary schools. In 1872 the first Higher Grade School was established by the Leeds School Board. In the same year the Science and Art Department offered new grants encouraging the establishment of Organised Science Schools, *i.e.*, grouped science classes which could be held in elementary school buildings. Higher Grade Schools were established by the School Boards of Bradford in 1875 and of London in 1876. From 1880 onwards, schools of this type steadily increased, especially in the industrial districts of the North. The movement for popular secondary education had begun.

The Higher Grade Schools aimed at meeting the need for what the Schools Inquiry Commission had called "third-grade secondary schools," *viz.*, for pupils from 12—14. But, so far as the Elementary Education Acts were concerned, their position was irregular, though officially condoned or encouraged. In the meantime the endowed local secondary schools had no status under any local education authority and were not eligible for any rate aid. Some of them earned Science and Art grants, but reliance on this source of income unduly specialised the curriculum. The School Boards, on their part, had no power (nor, in their hope of forestalling legislation by

the establishment of a claim to become the authorities for secondary education, always the wish) to review all existing kinds of secondary school provision within their area. Public inquiry would have drawn attention to an anomalous situation and have alarmed many ratepayers. Hence the movement for the establishment of Higher Grade Board Schools (encouraged by public belief in science teaching and responding to a real demand) was allowed to extend itself somewhat illicitly. But it raised in an acute form the questions as to the true limits of elementary and secondary education, and as to the lines upon which, if at all, secondary education should be organised by local authorities. The School Boards, feeling that by administrative action they were quickly establishing their claim to be the local authorities for popular secondary education, did not want to raise the question of further legislation. The opponents of the School Boards were mostly concerned with limiting the ambitions of popular education and did not want to move for the extension of popular control or of rate aid to secondary education. The governors of local secondary schools were inert, timid, hampered by financial difficulties, and unorganised. Matthew Arnold argued for the national organisation of secondary education, but his appeals were coldly regarded by the leading statesmen of both parties, who shrank from the difficult questions which would be raised. Among many of the leaders of the School Board party, there was a lurking hope that the weaker of the endowed schools would gradually be crushed out by the competition of the higher grade schools. In the meantime the great boarding-schools were drawing away many who would have been educated at the local secondary schools, and the influence of the latter was weakened by this diversion of interest and support.

(3) In 1888, Lord Cross's Commission on the Elementary Education Acts reported that "if the curriculum of higher elementary schools is restricted within due limits, avoiding all attempts to invade the ground properly

belonging to secondary schools" (the limits of secondary education were not however defined) "such schools may prove a useful addition to our school machinery for primary education" (vol. i., p. 219). A minority report, signed by Messrs. Lyulph Stanley (now Lord Sheffield), R. W. Dale, Henry Richard, and two others, declared decisively in favour of higher elementary schools to which pupils should be drafted at 11 or 12 years of age. "The higher elementary school would satisfy the wants of an entirely different class from those who desire secondary education. Secondary education is for those who will be under continuous instruction till 16 or 18, whether they go on afterwards to higher University instruction or not: whereas this higher elementary education is intended to teach more thoroughly those who must begin to earn their living, and at any rate begin to learn their trade, at 14 or 15 years" (vol. i., p. 319).

The questions at issue were whether the elementary school tradition (strong in popular sympathies but weak in intellectual standards) should control the middle grade of secondary education, and whether the latter should become virtually free.

(4) The Technical Instruction Act, 1889, made the new County and County Borough Councils (which, unlike the School Boards, covered the whole country) local authorities for technical instruction, including instruction in science and art and "any other forms of instruction (including modern languages and commercial and agricultural subjects)" which might be sanctioned by the Science and Art Department upon local application, and with Parliamentary assent. The Local Taxation (Customs and Excise) Act, 1890, unexpectedly made large funds available for the assistance of this instruction. Rates could also be levied for the purpose. Educational ambitions awoke in the new County and County Borough Committees. Help was given to the local grammar schools in the form of annual grants for science teaching and for the building of laboratories. The need of secondary education as a basis for higher technical

instruction was realised. In the large cities, two rival local authorities were engaged (each with access to the rates) in dealing with the same educational problem. The new County and County Borough Committees began to demand an extension of their powers, and to question the legality of much that the School Boards were doing for more advanced instruction.

(5) An important conference held at Oxford in 1893 focussed public interest on the question and led to the appointment of the Royal Commission on Secondary Education (with Mr. Bryce as chairman) in 1894. The Commissioners reported in 1895 in favour of the unification of the Central Authority; the establishment of County and County Borough authorities for secondary education, with direct representation of the local School Board upon the authorities for London and the County Boroughs; the exemption of non-local schools from supervision by local authorities; power to the local authority to aid, from rates, secondary schools whether under its direct management or not; abandonment of the stiff plan of school-grading suggested by the Schools Inquiry Commission; and great freedom to the local authorities in classifying secondary schools and in fixing their curriculum. Local authorities to have powers of initiating new schemes for endowed schools in their district; higher grade elementary schools to be treated as secondary schools; efficient proprietary and private secondary schools to be recognised as part of the local provision of secondary education; the scholarship system to be greatly developed; school examinations to be regulated by the central authority, but not conducted by it; fees, fixed in view of the real cost of supplying instruction, to be charged in secondary schools, with abundant help for poor scholars; a register of teachers to be formed by the Educational Council attached to the central authority; and the professional training of secondary school teachers to be encouraged.

Limited by the terms of their reference to a consideration of "the best methods of establishing a well-organised system of secondary education in England,"

the Commissioners felt debarred from discussing any plan for the unification of the local authority for elementary and secondary education. But their recommendations tended in the direction of superseding the School Boards by new County and County Borough authorities. The chief weakness of the report lay in its failure to grapple with the questions of secondary school curricula and of continued education during adolescence for those who enter upon the practical work of life at 13 or 14 but need part-time instruction during the following years. The great majority of the Commissioners' recommendations have since been carried into effect, with such modifications as other legislative changes have made necessary.

#### REFERENCES.

- Report of the Royal Commission on the Elementary Education Acts, 1888, vol. i. Especially part iv, chapter 5.  
 Report of the Royal Commission on Secondary Education, 1895, vol. i.  
 G. R. Parkin. *Life and Letters of Edward Thring*, 1900. Especially chapter vi.  
 Edward Thring. *Theory and Practice of Teaching*, 1889.  
 Lady Laura Ridding. *Life of George Ridding*, 1905.  
 R. D. Roberts (editor). *Education in the Nineteenth Century*, 1901.  
 Article by R. P. Scott on "Secondary Education Legislation," pp. 59—81.

### The Education of Girls and Women.

#### (1) CHIEF DATES IN THE MOVEMENT FOR THE BETTER EDUCATION OF GIRLS AND WOMEN IN ENGLAND.

1846. Examinations for diplomas for governesses in private families instituted by the Governesses' Benevolent Institution, London. Classes in preparation for these examinations begun in 1847; developed into Queen's College, Harley Street, London, 1848. Several professors and lecturers of King's College, London, took an active part in the instruction, especially Frederick Denison Maurice, R. C. Trench, Charles Kingsley, and E. H. Plumptre. Among the first pupils were Frances Mary Buss and Dorothea Beale.

1847. Mrs. Reid opened classes for women in her house in London; these were the nucleus of Bedford College, London, founded 1849.

1850. Miss Buss began her school in Camden Town. This was made a public school under trusts in 1870 (North London Collegiate School) and became the model for the organisation of girls' High Schools.

1850. William John Butler founded the Sisterhood of St. Mary, Wantage.

1853. Cheltenham Ladies' College, founded. Miss Beale (who had been a tutor at Queen's College and afterwards headmistress of the Clergy Daughters' School at Casterton) became Principal in 1858.

1863. Girls admitted "informally" 1863, fully in 1865, to the Cambridge University Local Examinations (which had been established in 1858).

1864. Schools Inquiry Commission appointed without any reference to girls' education. Miss Emily Davies and Miss Bostock circulated for signature a memorial to the Commissioners asking that the education of girls might be included in the scope of their inquiry. In 1865, the Commissioners acceded to this request. One of their Assistant-Commissioners, Mr. James Bryce, reported on the education of girls in Lancashire. The Commissioners, in 1868, reported on the condition of girls' schools. They recorded much improvement as going on in them, but adopted, as concise and accurate, the following view of the general quality of their work: "We find as a rule a very small amount of professional skill, an inferior set of school books, a vast deal of dry uninteresting task work, rules put into the memory with no explanation of their principles, no system of examination worthy of the name, a very false estimate of the relative value of the several kinds of acquirement, a reference to effect rather than to solid worth, a tendency to fill or adorn rather than to strengthen the mind." The Commissioners recorded their opinion that "the essential capacity for learning is the same or nearly the same in the two sexes," but that the complete assimilation of the education of boys and girls

should not be attempted. They advised an independent system of examinations for girls' schools, a system of inspection, and the better preparation of women teachers, especially by the establishment of colleges of University rank for women. The Commissioners advised the application of educational endowments to the education of girls. "The appropriation of almost all the educational endowments of the country to the education of boys is felt by a large and increasing number, both of men and women, to be a cruel injustice. . . . With our present convictions about the importance of female education, and with our unwillingness to adhere too rigidly to the literal expressions of founders without allowing for the force of altered circumstances, we conceive that, even were the bearing of the old Deeds far more manifest than it is, the exclusion of girls from the benefits of educational endowments would be in the highest degree inexpedient and unjust; and we cannot believe that in any comprehensive adjustment of these great questions it will be maintained or defended" (Report, vol. i., p. 567).

1866. Society of Schoolmistresses formed in London at the suggestion of Miss Emily Davies. Similar societies soon established at Manchester and (by Miss A. J. Clough) at Liverpool.

1866. Miss Clough published *Hints on the Organisation of Girls' Schools*, recommending (1) the appointment by Government of an educational Board, partly composed of members of the Universities, to supervise the education of girls and women; (2) that central day schools for girls, with good buildings, should be set up in each town and district and that the private schools should be invited to combine with them for classes in certain subjects; (3) that in large towns a series of lectures on higher subjects should be given to the older pupils of girls' schools. In the same year, she attempted, with the help of Mrs. Josephine Butler, to arrange opportunities of higher instruction for girls in Liverpool.

1867. Manchester (on the initiative of Miss Wolstenholme, afterwards Mrs. Wolstenholme Elmy) adopted



Miss Clough's plan. Similar action in Sheffield, Leeds, and Newcastle-upon-Type. The North of England Council for Promoting the Higher Education of Women established 1867. The Council included Mrs. Butler, Miss Clough, Miss Wolstenholme, Mr. James Bryce, and Mr. (afterwards Sir) Joshua Fitch. The Council arranged courses of lectures by University teachers (the first lecturer, Mr. James Stuart) from 1867 onwards. These afterwards developed into the University Extension system.

1868. The University of Cambridge established the Higher Local Examination for women over 18. Division of opinion among leaders of women's movement as to whether separate examinations for women should be aimed at or whether the admission of women on the same terms as men to all University examinations should be worked for.

1869. The Endowed Schools Act appointed commissioners, with power to make schemes for the application of educational endowments in such manner (section 9) "as may render any educational endowments most conducive to the advancement of the education of boys and girls."

1869. Owens College, Manchester, opened its lectures to women.

1869. College for women established, by the efforts of Miss Davies and her friends, at Hitchin, 1869, and moved to Cambridge (Girton College) 1873.

1870. At the suggestion of Mr. Henry Sidgwick, courses of lectures, designed to prepare for the women's examinations, were started at Cambridge. To provide accommodation for students from a distance, a house of residence was opened at Cambridge under the charge (1871) of Miss Clough. This hall of residence developed into Newnham Hall (1875), which became Newnham College in 1880.

1870. Oxford University Local Examinations opened to girls.

1870. Elementary Education Act made women eligible for election to School Boards.

1871. Mrs. William Grey, Miss Shirreff, Lady Stanley of Alderley, Miss Mary Gurney, and others established the National Union for Promoting the Education of Women.

1872. The Union started the Girls' Public Day School Company for the foundation of High Schools for girls. Among the members of its Council were Lady Stanley of Alderley, Miss Gurney, Mrs. William Grey, Mr. C. S. Roundell, and Sir J. Kay-Shuttleworth.

1873. Girls' High Schools established by the G.P.D.S. Co. at Chelsea and Notting Hill.

1873. University of Cambridge established the Syndicate for Local Lectures (University Extension). Combined with the Syndicate for Local Examinations, 1878.

1874. Manchester High School founded.

1875. University of Oxford established its Higher Local Examinations (first held 1877, and, till 1901, open to women only).

1876. University of St. Andrews established its Higher Examination for Women, with Diploma L.L.A.

1877. University of Edinburgh granted diploma in Arts to women, after attendance at courses and the passing of an examination which would entitle men to degrees. University of Glasgow established a Higher Local Examination for Women.

1878. Supplementary Charter granted to the University of London to hold examinations for women. Women admitted to all degrees in the University, 1880.

1879. Lady Margaret Hall and Somerville Hall (now Somerville College) opened in Oxford.

1880. Charter granted to Victoria University (of which Owens College, Manchester, was the only original member). All its then existing degrees were opened to both men and women.

1881. Women admitted to all the Honours examina-

tions of the University of Cambridge for the degree of B.A.

1883. Medical degrees established in the Victoria University, by Supplementary Charter which expressly admitted men and women.

1884. Honours Moderations and the Final Honours Schools of Mathematics, Science, and Modern History opened to women at Oxford.

1887. Holloway College opened.

1892. Scottish Universities Commission issued an ordinance empowering the Universities to admit women to graduation and to make provision within the Universities for the instruction of women. The ordinary classes in Science and Arts were opened to women at the Universities of St. Andrews, Edinburgh, and Aberdeen. In Glasgow, separate classes were arranged, Queen Margaret College becoming the women's department of the University and the women students being admitted to graduation in Arts, Medicine, and Science.

1893. University of Wales established, its Charter admitting women equally with men to all degrees and every office in the University.

1894. Royal Commission on Secondary Education included three women members. The first case of the appointment of women to a Royal Commission. The Commission's Report, published in 1895, recommended that women should be eligible for appointment upon all local education authorities, and stated that the duty and interest of the community required equal provision of secondary education to be made for both sexes (Report, vol. i., p. 297). The Commissioners also recommended (p. 300) that "provision of scholarships should everywhere be made for both boys and girls, and where the same scholarships are open to both sexes, care should be taken that a fair proportion, with regard both to the number of candidates and the comparative excellence of their work, is awarded to each sex."

1895. Durham University opened all degrees (except those in Divinity) to women.

'1902.' Education Act (Section 17) required every local education authority to include women as well as men among the members of its Education Committee.

1903—1911. The County and County Borough authorities largely extended the supply of public secondary schools for girls, and converted many secondary schools, previously confined to boys, into co-educational schools. Their action was stimulated by the new requirements of the Board of Education for the preliminary education of teachers for elementary schools.

## (2) MOVEMENTS OF OPINION WHICH PREPARED THE WAY FOR AND FURTHERED THE BETTER EDUCATION OF GIRLS AND WOMEN.

(a) The religious revival of the eighteenth century, emphasising the spiritual claims of each individual life. William Law on the education of girls in *The Serious Call* (1728). The Roman Catholic tradition in the training of girls. Education of girls under the Society of Friends, the Moravians, and the Wesleyans. The Clergy Daughters' School, Casterton.

(b) The movement for the social enfranchisement of women. Mary Wollstonecraft Godwin (1759—1797), *Thoughts on the Education of Daughters* (1787), *Vindication of the Rights of Women* (1792). Maria Edgeworth (1767—1849), *Letters to Literary Ladies* (1795), and (with her father) *Practical Education* (1798). Mary Somerville (1780—1872). Sydney Smith (1771—1845). William Lovett (1800—1877) and the Chartists' plan for the education of women. John Stuart Mill (1806—1873), *Subjection of Women* (1869). The Married Women's Property Acts, 1870, 1874, 1882, 1893. Eligibility of women ratepayers as electors to and members of certain local authorities.

## (3) INFLUENCE OF AMERICAN EDUCATION.

Moravian School for girls, Nazareth, Pennsylvania, 1750. Establishment of Academies in New England;

some (*e.g.*, that of Leicester, 1784) co-educational from the beginning. First Academy for girls in New England opened at Medford, Massachusetts, 1789. Gloucester, Massachusetts, provided education for girls in 1790. Beginnings of higher education for women in the United States, 1830—1839. Mount Holyoke, South Hadley, Mass., opened 1837; Elmira College, N.Y., 1855; University of Iowa co-educational from its opening in 1856; Vassar College, 1865 (most important in its influence on the later trend of higher education for women in America); Smith College and Wellesley College, 1875; Bryn Mawr, near Philadelphia, 1885; the Sophie Newcomb Memorial College for Women, affiliated with Tulane University, New Orleans, opened 1886, the first of its kind to be established; College for women at Western Reserve University, Cleveland, Ohio, established 1888 (women having been enrolled informally as students of the University from 1872); Barnard College (Columbia University) founded 1889; Radcliffe College (originally started 1879), the affiliated women's college of Harvard University, chartered to give degrees, 1894.

#### (4) THE TRACTARIAN MOVEMENT.

Mary Elizabeth Sewell. Charlotte Yonge. William John Butler (founder of the Wantage Sisterhood, 1850).

#### (5) PERSONAL INFLUENCE OF WOMEN ILLUSTRIOUS IN THE VICTORIAN ERA.

Queen Victoria. Florence Nightingale.

#### (6) INFLUENCE OF WOMEN WRITERS.

Maria Edgeworth (1767—1849); Jane Austen (1775—1817); Charlotte Brontë (1816—1855) and Emily Brontë (1818—1848); Mrs. Gaskell (1810—1865); Elizabeth Barrett Browning (1806—1861); George Eliot (Mary Ann Cross) (1819—1880); Christina Rossetti (1830—1894).

## (7) INFLUENCE OF THE SCIENTIFIC MOVEMENT.

The study of physical science, especially biology, emphasising the continuity of the social organisation and the importance of such physical and intellectual environment as will favour its healthy growth.

## REFERENCES.

- Schools Inquiry Commission Report, 1868, vol. i., chapter vi.  
 B. A. Clough. *A Memoir of Ann Jenima Clough* (1897).  
 C. S. Bremner. *Education of Girls and Women in Great Britain* (London, 1897).  
 S. A. Burstall. *English High Schools for Girls*. Especially chapter i.  
 A. V. Dicey. *The Relation between Law and Public Opinion in England*. Especially pp. 369—396.  
 Graham Balfour. *Educational Systems of Great Britain and Ireland*, pp. 241—244.

## The Influence of Science in English Education.

(1) The influence of scientific thought and inquiries upon English education during the years 1800—1911 has been fourfold:

(i.) Through its practical applications it has revolutionised the methods of industry, altered the distribution of population and facilitated communication, with the result that the need for elementary and technical education, which became urgent at the beginning of the nineteenth century, has led to the reconstruction of the whole system of national education upon a new basis.

(ii.) It has compelled the admission of scientific subjects into the curricula of every grade of school and into University studies, expanding the idea of elementary education, undermining the classical monopoly in secondary schools, and rendering obsolete the ecclesiastical control of University institutions.

(iii.) It has changed the outlook of the mind, enforcing a new way of looking at things, emphasising the organic unity of the social life of the community and in consequence the public responsibility for national education.

(iv.) It has given new significance to hygienic condi-

tions of life as a factor in healthy up-bringing and effective education, accentuating the importance of physical training and of medical supervision over health conditions in childhood.

(2) The growing influence of science is marked by the following reforms in English education, 1800—1911:

(i.) Popular scientific instruction for the artisan class began in Birmingham, 1796. The London Mechanics' Institution was established in 1823. The Manchester Mechanics' Institution, founded in 1824, was "formed for the purpose of enabling mechanics and artisans, of whatever trade they may be, to become acquainted with such branches of science as are of practical application in the exercise of that trade; that they may possess a more thorough knowledge of their business, acquire a greater degree of skill in the practice of it, and be qualified to make improvements and even new inventions in the arts which they respectively profess. It is not intended to teach the trade of the machine-maker, the dyer, the carpenter, the mason, or any other particular business; but there is no art which does not depend more or less on scientific principles, and to teach what these are and to point out their practical application will form the chief objects of the Institution" (extract from original prospectus).

(ii.) The foundation at York (in 1831) of the British Association for the Advancement of Science was intended "to bring science into contact with that practical knowledge on which the wealth of the country depends" (Babbage, at Oxford, 1832), to encourage co-operation in scientific inquiry, and to diffuse a wider knowledge of scientific thought.

(iii.) In 1836, Parliament voted £1,500 for the Committee of Trade for the establishment of a Normal School of Design. In 1853, a Science division was added to this nucleus of the central authority for technical education, and the whole received the title of the Department of Science and Art. In 1856, the Department was removed from the control of the Board of Trade and made co-

ordinate with the Elementary Education Department under the Committee of Council. In the meantime, in 1851, the Government "School of Mines and of Science applied to the Arts" was opened (reorganised in 1881 as the Normal School of Science and Royal School of Mines, and known since 1890 as the Royal College of Science). The influence of the Prince Consort, and the proofs afforded by the Great Exhibition of 1851 that English industry was in some respects deficient in scientific knowledge, led to this recognition by the State of the need for better organisation of technical instruction.

(iv.) In 1846, John Owens bequeathed nearly £100,000 for the foundation of a college at Manchester which should "provide or aid the means of instructing and improving young persons of the male sex (and being of an age not less than 14 years) in such branches of learning and science as are now and may be hereafter usually taught in the English Universities." The Owens College was opened in 1851. The influence of Whewell and Faraday and other scientific thinkers led, about the same time, to the inclusion of scientific studies in the Degree Courses at Oxford and Cambridge. The Natural Science Tripos at Cambridge was founded in 1851 and the Honours School for Natural Science at Oxford in 1853. The College of Medicine of Newcastle was brought into connection with the University of Durham in 1852.

(v.) In 1853, Ruskin, in the *Stones of Venice* (vol. iii., Appendix vii., "Modern Education"), condemned the neglect of natural science in English education. Herbert Spencer published in the *North British Review* in 1854 his "Essay on Intellectual Education," in which he urged that in teaching, "the arrangement of matter and method must correspond with the order of evolution of the faculties," and that "a knowledge of the laws of life is more important than any other knowledge whatever." In the same year Tyndall lectured on "The Importance of the Study of Physics as a Branch of Education." In 1859, Herbert Spencer published, in the *Westminster Review*, his essay "What Knowledge is of most Worth?"



with the reply that "the study of science, in its most comprehensive meaning, is the best preparation for all orders of activity."

(vi.) The Science and Art Department established local Science Schools in various towns between 1853 and 1859, and in the latter year offered grants, to be paid in aid of science classes in proportion to the number of pupils who should successfully pass an examination conducted by the Department. The teachers of these classes were required themselves to have passed a special examination held by the Department and to have obtained a certificate of competency to teach. The first examination for teachers was held by the Science and Art Department in 1859 (discontinued 1867), and the first general examination for pupils in 1861.

(vii.) In 1854, Huxley delivered his address "On the Educational Value of the Natural History Sciences" and in 1859 the publication of Darwin's *Origin of Species* made a profound impression upon English thought.

(viii.) In 1867, the Education Department first recognised natural science as a subject of instruction for elder pupils in elementary schools.

(ix.) In 1868, the Public Schools Commissioners recommended that every boy, in passing through one of the great Public Schools, should receive instruction in some one branch at least of natural science and that "the teaching of natural science should, wherever it is practicable, include two main branches, the one comprising chemistry and physics, the other comparative physiology and natural history, both animal and vegetable."

(x.) In 1870, the Royal Commission on Scientific Instruction was appointed (Duke of Devonshire, chairman). The issue of its reports began in 1871 and ended in 1875. The Commission recommended the inclusion of scientific teaching in all grades of education. In consequence, in 1872, the Science and Art Department first recognised Organised Science Schools, an attempt to set up something corresponding to the German Realschulen, but with entire neglect of literary studies. In 1875, the Education

Department for the first time encouraged elementary science as a "class subject" in public elementary schools, continuing to offer further grants for various branches of science as "specific subjects," taught to more advanced individual scholars. In 1877, after inquiry abroad, the Livery Companies of London formed a committee to prepare a scheme for a national system of technical education; and founded, in 1880, the City and Guilds of London Institute, the object of which was to provide and encourage education adapted to the requirements of all classes of persons engaged, or preparing to engage, in manufacturing or other industries. The Central Technical College at South Kensington was opened by the City and Guilds in 1884.

(xi.) A number of University Colleges in the large industrial centres were founded in rapid succession. Durham College of Science, Newcastle-upon-Tyne, in 1871; Yorkshire College, Leeds, 1874; University College, Bristol, 1876; Firth College, Sheffield, 1879; Mason College, Birmingham, 1880; and University College, Liverpool, 1882. All these colleges gave special attention to physical science.

(xii.) In 1880, the Royal Commission on Technical Instruction was appointed. In their final report (published 1884) they emphasised the need for good secondary schools of the modern type and advised that localities should be empowered to establish and maintain technical and secondary schools. In 1889, the Technical Instruction Act gave the Council of any county or borough and any urban sanitary authority rating powers for technical and scientific instruction. In 1890, the Local Taxation (Customs and Excise) Act placed at the disposal of the new authorities a large annual sum which might be devoted to technical and scientific instruction.

(xiii.) In 1890, the School Board of London first appointed a Medical Officer; in 1893, the Bradford School Board made a similar appointment (Dr. James Kerr). In 1893, the Elementary Education (Blind and Deaf Children) Act first imposed upon the local education authori-

ties specific duties in regard to afflicted children. The Elementary Education (Defective and Epileptic Children) Act, 1899, is on similar lines, but of a permissive character. The South African war, 1899—1902, drew public attention to the question of national physique. An Inter-departmental Committee on Physical Deterioration was appointed in 1903 and advised the introduction of systematic medical inspection of school children. A clause requiring local authorities to provide for such medical inspection was inserted in the Education Bill of 1906 which failed to become law; but the Education (Administrative Provisions) Act, 1907, Section 1E (1) *b*, imposed upon every local education authority "the duty to provide for the medical inspection of children immediately before, or at the time of, or as soon as possible after, their admission to a public elementary school, and on such other occasions as the Board of Education direct."

#### REFERENCES.

- J. T. Merz. *History of European Thought in the Nineteenth Century*. Especially vol. i., pp. 226—301, "The Scientific Spirit in England."
- A. R. Wallace. *The Wonderful Century*, 1905.
- T. H. Huxley. *Science and Education*.
- Herbert Spencer. *Education; Intellectual, Moral, and Physical*.
- R. D. Roberts (editor). *Education in the Nineteenth Century*, 1901. Article by Sir P. Magnus on "Industrial Education in the Nineteenth Century."
- M. E. Sadler. *Continuation Schools in England and Elsewhere*, pp. 12, 21, 31, 56, 67.

### The Period of Administrative Transition 1895-1902.

This period of seven years is memorable for the following reasons:

- (a) A conflict between two views as to the best form of Local Education Authority, ending (in the Education Act, 1902) in the abolition of *ad hoc* School Boards and the establishment of new

County and County Borough Authorities with powers affecting elementary and higher education.

- (b) Financial embarrassment of the voluntary schools owing to the rising cost of elementary education; special Parliamentary aid to associations of voluntary schools (1897); rate aid to voluntary schools (1902).
- (c) Unification of the Education Department, the Science and Art Department, and the educational side of the Charity Commission by the Board of Education Act, 1899, and by Orders in Council made under its provisions.
- (d) Complete disappearance of "payment by results" from elementary education (1897); change in the spirit and methods of government inspection; establishment of a Teachers' Superannuation Fund (1898); recognition of Higher Elementary Schools (1900).
- (e) Revival of the smaller endowed secondary schools through County Council aid; introduction of compulsory literary subjects into organised science schools (1895); Board of Education grants to secondary schools (1901); classification of aided secondary schools according to the prominence of scientific studies in their curricula (1902).
- (f) Limitation of the powers of School Boards (so far as expenditure from local rates was concerned) to elementary education for children, by a decision of the High Court of Justice (1900), arising out of the disallowance in 1899, by a district auditor of the Local Government Board, of certain expenditure of the London School Board upon Science and Art classes in day schools and in continuation schools.
- (g) Beginnings of the movement for the establishment of independent Universities in the great cities. University of London reorganised (1900); Charter granted to the University of Birmingham (1900).

## REFERENCES.

- Edwardes Jones & Sykes. *The Law of Public Education*. Especially The Voluntary Schools Act, 1897; The Elementary School Teachers (Superannuation) Act, 1898; The Board of Education Act, 1899.
- M. E. Sadler. *Continuation Schools in England and Elsewhere*, pp. 64—67 (the Cockerton judgment).
- Graham Balfour. *Educational Systems of Great Britain and Ireland*, pp. 31—32, 42—43, 167, 247—248, 250.

## The Education Act, 1902, and its Effects on Elementary and Secondary Education.

(1) The Education Act, passed by Mr. Balfour's Government in 1902 [extended and adapted to London by the Education (London) Act, 1903], abolished School Boards and School Attendance Committees, and constituted the Councils of every county and county borough the local education authority for elementary and higher education, with a proviso that the Council of every non-county borough with a population of over 10,000 and of every urban district with a population of over 20,000 should (unless voluntarily relinquishing its autonomous powers) be the authority for elementary (but not for higher) education within its area.

On July 31st, 1908, there were in England 49 County and 71 County Borough Education Authorities, and (for elementary education only) 134 Borough and 46 Urban District Authorities, viz., in all, 120 authorities for higher and 300 for elementary education.

Each Council having powers under the Act was required to establish an education committee under a scheme approved by the Board of Education. Every scheme had to provide for a majority of the committee being appointed by the Council and (unless decided otherwise in the case of a county) being chosen from members of the Council. Every scheme had also to provide (1) for the appointment by the Council, on the nomination or recommendation (where it appeared desirable) of other bodies (including associations of voluntary schools), of persons of experience in education and of persons acquainted with the needs of

the various kinds of schools in the area for which the Council would act; (2) for the inclusion of women as well as men among the members of the education committee; and (3) for the appointment, if desirable, of members of School Boards existing at the time of the passing of the Act as members of the first committee.

All matters under the Act (except the power of raising a rate or borrowing money) stand referred to the education committee: and the Council, before exercising its power under the Act, must, except in cases of urgency, receive and consider the report of the education committee upon the matter in question. The Council may delegate to its education committee any power under the Act except its financial powers.

The Act thus endeavoured to secure (1) unification of the educational with the other departments of county and municipal administration; (2) a representative composition of the education committees, with due regard to continuity and variety of experience; (3) delegation of administrative responsibilities, combined with unity of financial control.

The duties of each local authority include those of their predecessors, the School Boards and school attendance committees, and also responsibility for and the control of all secular instruction in all non-provided public elementary schools in the area. Each county and county borough authority was also required "to consider the educational needs of their area and to take such steps as may seem to them desirable, after consultation with the Board of Education, to supply or aid the supply of education other than elementary and to promote the general co-ordination of all forms of education." In the discharge of this duty, they were "to have regard to any existing supply of efficient schools or colleges and to any steps taken for the purposes of higher education under the Technical Instruction Acts." The power to supply or aid the supply of higher education includes power to train teachers.

The rating powers of the Councils are unlimited,

except that a County Council (the London County Council being exempt from the limitation) may not exceed (unless with the consent of the Local Government Board) a rate of 2d. in the £ for higher education.

If the local education authority fails to fulfil any of its duties under the Act or previous Elementary Education Acts, or to provide such additional public school accommodation as is necessary in the opinion of the Board of Education, the Board, after holding a public inquiry, may make such order as it thinks necessary or proper for the purpose of compelling the authority to do its duty, and any such order may be enforced by mandamus (*i.e.*, by order of Court of King's Bench).

Two classes of elementary schools thus came under the control of the local education authority, though with different degrees of completeness, and had to be maintained by it from public funds. These were (1) provided or Council schools and (2) non-provided or voluntary schools. The Council schools are entirely under the control of the local education authority. Each Council school in a county must, and in a borough or urban district may, have a body of managers appointed by the Council. The non-provided schools are, so far as secular instruction is concerned, under the control and inspection of the local education authority, which may also enforce directions as to the number and qualifications of the teachers, to be employed for secular instruction in them and for the dismissal of any teacher in them on educational grounds. But for every voluntary school there must be a body of managers consisting of a number (not exceeding four) called foundation managers appointed under the provisions of the trust deed of the school and of two others appointed by the local education authority or authorities concerned. These managers of a non-provided school must carry out the directions of the local education authority as regards secular instruction; must provide the school house free of charge and keep it in good repair out of funds provided by them (such damage as the local authority considers to be due to fair wear and tear in the

use of any room in the school house for the purpose of a public elementary school being made good by the authority); must allow the local education authority to use, if it has no other suitable accommodation in a provided school, any room in the school house, free of charge, for any educational purpose, on not more than three days in the week; and must obtain the consent of the local education authority to the appointment of any teacher (such consent not being allowed to be withheld except on educational grounds) and to the dismissal of any teacher unless the dismissal be on grounds connected with the giving of religious instruction in the school.

Religious instruction in a provided elementary school is, where given, subject to the Cowper-Temple Clause (Section 14 (2) of the Elementary Education Act, 1870): "No religious catechism or religious formulary which is distinctive of any particular denomination shall be taught in the school." In any secondary school, college, or hostel provided by a Council under the Education Act, 1902, "no catechism or formulary distinctive of any particular denomination shall be taught, except in cases where the Council, at the request of parents of scholars, at such times and under such conditions as the Council think desirable, allow any religious instruction to be given in the school, college, or hostel otherwise than at the cost of the Council; provided that in the exercise of this power no unfair preference may be shown to any religious denomination" (E. E. Act, 1902, Section 4 (1)).

Religious instruction in a non-provided elementary school is required to be "in accordance with the provision, if any, of the trust deed relating thereto," and (subject to any appeal to higher ecclesiastical authority which the trust deed may secure) is under the control of the Managers (Section 7 (6), Kenyon-Slaney clause). In all elementary and secondary schools aided by a Council the scholars must be protected by a conscience clause.

When it is proposed (either by a Council or by voluntary subscribers) to provide a new public elementary school, the managers of any existing school, or the local



education authority, or ten ratepayers in the area may appeal to the Board of Education on the ground that the proposed school is not required. The Board of Education has then the duty of determining whether the school is necessary or not. In so determining, the Board is required to "have regard to the interest of secular instruction, to the wishes of the parents as to the education of their children, and to the economy of the rates" (Sections 8 and 9). Only those public elementary schools which are officially recognised as "necessary" are eligible for Parliamentary grants.

The power to provide instruction under the Elementary Education Acts is limited to the provision in a public elementary school of instruction given under the regulations of the Board of Education to scholars who, at the close of the school year, will not be more than 16 years of age; but the local education authority may, with the consent of the Board of Education, extend those limits in the case of any public elementary school if no suitable higher education is available within a reasonable distance of the school (Section 22 (2)). Evening schools are counted as part of higher education (Section 22 (1)).

(2) The main results of the Education Act, 1902, and the Education (London) Act, 1903, have been :

(i.) The whole country has been brought under local education authorities which control and maintain all the secular instruction in every public elementary school in their area and are charged with the duty of promoting the co-ordination of elementary and higher education in their district. Thus the educational needs of each area are more systematically reviewed than at any earlier time. The work of the central authority in raising the level of national education is facilitated by there being a strong local authority, responsible for educational policy, in every area.

(ii.) The position of teachers in non-provided schools has been greatly improved and the independence of the managers of non-provided schools, so far as secular

instruction is concerned, greatly curtailed. Public elementary schools of a denominational character have received rate aid and have become an integral part of the local system of elementary education.

(iii.) Facilities for secondary education for boys and girls have been greatly extended, both by the establishment of new secondary schools by local authorities and, through the improvement of existing secondary schools, by aid from rates and from Government grants. The transference of promising pupils from elementary to secondary schools and from secondary schools to places of higher instruction has been greatly encouraged by means of a very extensive system of scholarships and by the offer of free places.

(iv.) The methods of recruiting the teaching profession have been revolutionised by changes in the pupil teacher system and by prolongation (at secondary schools) of the preliminary education of candidates.

(v.) The organisation of continuation schools and of technical instruction has been greatly improved, and the provision of training colleges widely extended.

(vi.) The controversy as to the right relation between the State and denominational effort in national education has become graver.

(vii.) The nation as a whole has gained a clearer view of the interdependence of elementary, secondary, and technical education.

#### REFERENCES.

Edwardes Jones and Sykes. *The Law of Public Education*. Especially pp. 30—187.

Board of Education Annual Reports, 1902 to date.

Graham Balfour. *Educational Systems of Great Britain and Ireland*, pp. 33—37.

Report of the Consultative Committee of the Board of Education on the Question of Devolution by County Education Authorities, 1908 (Cd. 3952)

## Education Acts, Bills, and Administrative Re-Organisation since 1902.

### I. ACTS.

The Education (London) Act, 1903, applied the Education Act of 1902 to London.

The Education (Provision of Meals) Act, 1906, gave any local education authority, under Part III. of the Education Act, 1902, power to aid School Canteen Committees in the provision of meals for children. The School Canteen Committee (on which the local authority must be represented) undertakes to provide food for children in the schools, and the local education authority may aid it by furnishing such buildings, furniture, apparatus, officers, and servants as may be necessary for the organisation, preparation, and service of the meals. A charge fixed by the local education authority is to be made to the parent of every child in respect of every meal furnished under the Act. It is the duty of the authority, unless satisfied that the parent is unable by reason of circumstances other than his own default to pay the amount, to require payment from the parent, and, if necessary, to recover it by summary process as a civil debt. If a local education authority resolves that any of the children attending an elementary school within its area are unable, by reason of lack of food, to take full advantage of the education provided for them, and has ascertained that funds other than public funds are not available to defray the cost of food furnished in meals under the Act, the local authority may apply to the Board of Education and, with its permission, provide the food out of the rates, the limit of expenditure being a rate of a halfpenny in the pound.

The Education (Administrative Provisions) Act, 1907, extended the period for repayment of money borrowed by County Councils under the Education Act from a maximum of thirty years to a maximum of sixty years. It

enabled local education authorities to give scholarships or bursaries tenable in public elementary schools by scholars up to 16 years of age (a provision which would enable an authority, by maintenance allowances, to encourage the prolongation of school life). It gave a local education authority power to provide vacation schools, play centres, and other means of holiday and out-of-school recreation for children attending a public elementary school. It imposed on the local education authority the duty of providing for the medical inspection of children immediately before, or at the time of, or as soon as possible after, their admission to a public elementary school and on such other occasions as the Board of Education direct. It gave the L. E. A. power to make any arrangement sanctioned by the Board of Education for attending to the health and physical condition of the children educated in public elementary schools. The Act also authorised the constitution (by Order in Council) of a new registration council representative of the teaching profession, to whom should be assigned the duty of forming and keeping a register of such teachers as satisfy the conditions of registration established by the Council and apply to be registered. The Act provides that "the register shall contain the names and addresses of all registered teachers, in alphabetical order, in one column, together with the date of their registration, and with such further statement as regards their attainments, training, and experience as the Council may from time to time determine that it is desirable to set forth."

The Children Act, 1908, codifies and amends the law with regard to reformatory and industrial schools, imposes a penalty on vagrants who prevent their children from receiving education, provides for the safety of children at entertainments and for the cleansing, under the direction of the local education authority, of the person and clothing of any children who come to school "in a foul or filthy condition."

The Education (Scotland) Act, 1908, section 10 of which enables the School Boards in Scotland to require

attendance at continuation schools on the part of young persons up to 17 years of age, has had considerable effect on English public opinion.

## II. BILLS.

Various attempts were made in the years 1906-1908 to amend the provisions of the Education Act, 1902, especially in regard to religious instruction in public elementary schools. The most comprehensive of these bills was that introduced by Mr. Birrell, on behalf of Sir Henry Campbell-Bannerman's Government, in 1906. This Bill proposed that after January 1st, 1908, no school should be recognised as a public elementary school unless it were a school provided by the local education authority. This involved the compulsory transfer of such voluntary school buildings (held under educational trusts) as the local education authority of the district might desire to take over. The terms of transfer were to be fixed by three special commissioners appointed under the Act, whose decisions were to be final and not subject to interference on the part of the High Court of Justice. In the case of transferred voluntary schools, the special religious instruction might be given (not at the expense of the L. E. A.) on not more than two mornings in the week. In any transferred voluntary school in an urban area with a population exceeding 5,000, if the parents of at least four-fifths of the children attending the school desired the religious instruction to be of a special character not permitted by the Cowper-Temple clause, the L. E. A. might grant such "extended facilities" on certain conditions. In such cases, but in no others, the teachers might, with the assent of the L. E. A., give special religious instruction. Mr. Birrell's plan was to put an end to voluntary schools of the old type under special trusts, and to meet in urban areas any special demand for schools not of a thoroughly denominational character by allowing the local education authority to permit one or more of the schools under its direction to provide during school hours

denominational teaching of a type desired by an overwhelming majority of the parents of the children concerned. No teacher employed in any public elementary school was to be required to give any religious instruction and no child was to be obliged to attend school except during times allotted in the time-table exclusively to secular instruction. Mr. Birrell's Bill included proposals (dropped at an early stage) for greatly increasing the administrative powers of the Board of Education in the re-organisation of educational endowments; for the establishment of an educational council for Wales (cut out by the House of Lords); and for the extension of the period for repayment of educational loans (made law by the Education (Administrative Provisions) Act, 1907). In the House of Lords the Bill was amended by requiring (1) that in every public elementary school provision should be made for the giving of religious teaching (subject to a conscience clause) within the hours of compulsory school attendance; (2) that facilities for special religious instruction, where reasonably practicable, should be granted in provided schools in response to the demand of the parents of a reasonable number of children in cases in which the children could not conveniently attend another school where such special religious instruction was given; (3) that, where special religious instruction was given, the control of it should be under a Parents' Committee consisting of four members elected by the parents desiring such special religious instruction, one member appointed by the L. E. A., and one member appointed by the owners of the school building; (4) that "extended facilities" for special religious instruction should be granted in rural as well as urban areas, in response to the demand of the parents of two-thirds of the children, subject to (a) undenominational instruction being provided for those children whose parents preferred it, or (b) accommodation in another school without "extended facilities" being available; (5) that a category of State-aided schools, not under direct local control but receiving Parliamentary grants, should be permitted, with the assent of the special

commission and of the Board of Education; (6) that new denominational schools should be allowed to be set up in districts where, after inquiry, the Board of Education might determine such a school to be required; and (7) that the teacher, though not required to give any religious instruction, should be free, if he wished, to give any kind of religious instruction permitted in the particular school. The Government and the House of Lords were unable to agree upon any compromise and the Bill dropped.

In 1908, Mr. McKenna introduced an Education Bill which (1) confined rate aid to provided schools under the Cowper-Temple clause; (2) compelled local authorities to provide public elementary schools and free places wherever desired; and (3) proposed Parliamentary grants, not exceeding 47s. per child per annum, to schools which were not public elementary schools, provided that the latter contained not less than 30 scholars, were open to Government inspection, were efficient as regards staff, premises, and secular instruction, and were not in a "single-school parish." This Bill was not proceeded with. In the same session the Bishop of St. Asaph introduced in the House of Lords a Bill which was largely identical with that of Mr. McKenna, but omitted the provisions for "State-aided schools" ("contracted-out schools"); provided for facilities for denominational teaching being given on at least three days a week, during school hours, in all provided schools; required undenominational teaching to be offered in all schools; and, while compelling no teacher to give religious instruction, permitted him to volunteer to give either undenominational or denominational teaching.

In the autumn of 1908, Mr. Runciman, on behalf of Mr. Asquith's Government, introduced a Bill which proposed that no rate aid should be given to any school not provided by a local education authority; required the first three-quarters of an hour of the morning meeting to be set apart for undenominational religious instruction; allowed, at the request of the parent, special religious instruction to be given in all schools, on two mornings in

the week, within the school buildings, if accommodation could reasonably be made available; allowed the special religious instruction to be given by (a) assistant teachers, but (b) by those head teachers only who held office in some existing voluntary school at the time of the passing of the Act—this freedom to be continued to him (for a period of five years) in any other transferred voluntary school in which he might serve; permitted the local education authority to establish a Religious Instruction Committee to which all questions as to the syllabus of religious instruction provided by the authority should stand referred; recognised State-aided schools not under the control of the local education authority, and proposed a scale of annual grants for such schools, where organised in associations; and enabled the local education authority to take a transfer of the school-house of any existing voluntary school upon terms of payment fixed upon a scale included in the Bill. These proposals, which were an attempt to reach a basis of compromise, excited much opposition on both sides. In consequence the Government abandoned the Bill in the House of Commons in December, 1908.

### III. NEW REGULATIONS OF THE BOARD OF EDUCATION.

During the years 1902–1911 a series of important regulations have been issued by the Board of Education (a) for secondary schools; (b) for the preliminary education of elementary school teachers; (c) for the training of teachers for elementary and secondary schools; (d) for the reduction in the size of classes in elementary schools; and (e) for the medical inspection of children attending elementary schools.

#### REFERENCES.

- Bill 160, 1906 (Mr. Birrell's original Bill).  
 Bill 317, 1906 (Mr. Birrell's Bill as amended in the House of Commons).  
 • The Lords' amendments to Mr. Birrell's Bill and the final proposals of the Government are set out in  
 S. Lowry Porter. *The Education Bill of 1906* (Cambridge: Macmillan & Bowes, 1907).



Annual Report, 1908, of the National Education Association (Caxton House, Westminster), (containing a good summary of Mr. McKenna's Bill and the Bishop of Asaph's Bill).

Bill 376, 1908 (Mr. Runciman's Bill).

*The Red Code, 1909* (London : Schoolmaster Publishing Company, 3, Racquet Court, Fleet Street, E.C.), contains the Education Acts, 1903—1907, and the educational clauses of the Children Act, 1908, together with the current regulations for elementary and secondary schools for the preliminary education and training of teachers.

Annual Report for 1908 of the Chief Medical Officer of the Board of Education (London : Eyre & Spottiswoode, 1910, Cd. 4986).

## The Influence of Economic Thought in English Education.

1. In 1765, in a controversy on the relation of the State to education, John Brown (Church of England) argued for a comprehensive national system of education in conformity with the doctrines of the Established Church, and Joseph Priestley (Unitarian) replied in favour of non-interference on the part of the State with any grade of public instruction. A middle line was taken by Adam Smith in the *Wealth of Nations* (published 1776), in which he maintained (Book v., chap. 1, conclusion) that "the expense of institutions for education and religious instruction is beneficial to the whole society, and may therefore without injustice be defrayed by the general contribution of the whole society. The expense, however, might perhaps with equal propriety, and even with some advantage, be defrayed altogether by those who receive the immediate benefit of such education and instruction, or by the voluntary contribution of those who think they have occasion for either the one or the other." Adam Smith (Book v., chap. 1, art. ii.) argues against endowments (and, inferentially, against State aid) for University and secondary education : but approves of (1) public assistance (combined with school fees) for elementary education ; (2) compulsory elementary education as a safeguard against the delusions of enthusiasm and superstition and as a corrective of the benumbing effects

of specialised employment; (3) public examinations in "the most essential parts of education" as a test qualifying for permission "to set up any trade in a village or town corporate"; and (4), though with cautious reserve, compulsory military training as the best means of supporting "the martial spirit upon which the security of every society must depend." The influence of Adam Smith's argument induced moderate opinion in England to favour the idea of public aid (mostly, or exclusively, from local rates) to elementary education; discouraged any idea of the State organisation of Universities or higher schools or technological institutes (in this respect German and English practice diverged); put the old educational endowments on their defence and stimulated their internal reform; prepared the public mind for State investigation into educational charities; encouraged a mild kind of voluntarism in education; commended the idea of public examination for admission to various employments, including the public service; and concealed the defects in the education of girls. The development of English education, 1800—1850, shows how strong his influence upon the opinion of statesmen continued to be.

2. Thus Adam Smith's conclusions assumed a large measure of State action in education but did not define its limits or mechanism. But within a few years French Revolutionary thought forced upon English consideration the fundamental question whether in education State authority is to be supreme. William Godwin (1756—1836) argued in his *Political Justice* (1793) that individuality is of the essence of perfection; that government, even in its best state, is an evil; and that the coercive power of a central authority should be abolished. He was followed by the individualistic section of Radicals and his influence, as deterrent to the revolutionary reconstruction of government, was not unwelcome to many conservatives who dreaded change. On the other hand, Robert Owen (1771—1858), in his *New View of Society* (1816), argued for highly organised central control, which, by imposing upon all citizens a system of education and

a new economic environment, would mould character and determine social ideals. His view attracted those reformers who inclined towards strong government in the interest of the whole community, and was not unpalatable to many conservatives who believed in State authority though unwilling to subvert its existing form. Thus the currents of opinion represented by Godwin and Owen checked each other. The resulting drift of thought moved in a direction intermediate between the two. T. R. Malthus (1766—1834) represented one phase of this resultant opinion. In education, he argued, the State must so act as to enlighten the individual for his economic welfare in a necessarily competitive society. Jeremy Bentham (1748—1832) represented another phase. Government is an evil (he argued), but a necessary evil. Provide (by voluntary effort, so far as possible) an enlightening and useful education in order to enable the democracy to discern and counteract the working of "sinister interests"; and so organise the mechanism of government and administration, by the competitive selection of qualified persons bidding against one another in the cheap proffer of their services, as to furnish the community with official agents who will be energetic in securing the greatest good of the greatest number under the close supervision of Parliament annually re-elected by universal suffrage. Malthus' political economy and Bentham's utilitarianism produced a general measure of agreement in favour of a moderate degree of State action in the organisation of elementary education in England as a matter of social urgency; stimulated the demand for a non-classical and scientific curriculum in secondary schools; prepared the way for competitive examination as a test for admission to the public service; and inclined the Radical party to the belief that political reform must precede any attempt to re-organise national education upon a new and comprehensive plan. The result was that State action in English elementary education proved practicable from 1833 onwards but only in a form which recognised and aided denominational effort as an integral

part of national education, and that Government allowed the existing institutions for secondary and higher education gradually to reform themselves under the stimulus of public inquiry and criticism, instead of confiscating their revenues or setting up a new system of schools and colleges, in direct dependence on the State.

3. In the period 1846—1852, the demand for a more logical settlement of the education question re-asserted itself, largely under the influence of new currents of economic thought. On the one hand, William Lovett and the Chartists had since 1837 advocated a thorough-going re-organisation of national education under largely centralised democratic control; and Thomas Carlyle (especially in *Past and Present*, 1843, and in *Letterday Pamphlets*, 1850) called for decisive action by the State in educational affairs, with a view to effective national unity and discipline but with little belief in the machinery of elective government. On the other hand, Edward Baines (1820—1890), especially in *Crosby Hall Lectures* (1848), and others, applied in an extreme form the doctrine of voluntarism and free competition to the problem of education and protested against State action as intellectually mischievous, intolerably expensive, and certain to entail the benumbing results of bureaucracy. Again, the mass of English opinion was forced by these opposing opinions along a middle course. It was felt that the condition of the people made State action inevitable, but that care should be taken to guard against a State monopoly in education. This view was concisely stated by John Stuart Mill in his essay *On Liberty* (1859). The result in English educational policy was an extension of State action, combined with encouragement of voluntary enterprise, and with the setting up of local education authorities which, while co-operating with the central authority, would check any undue exercise of its power.

4. After an interval of thirty years (during which the economic and political effects of State organisation in German education had begun to show themselves), the mixture of contradictory principles in English educational

policy began once more to provoke attack both from the collectivist and the individualist points of view. John Ruskin (whose economic and social doctrines, though published in 1860, 1867, and 1871, had but a limited influence till 1885) and a group of economic writers (Hyndman and others), affected by German Collectivism, advocated thoroughgoing re-organisation of national education under Government direction. On the other hand, Auberon Herbert and a school of individualist thinkers denounced State action in education as hurtful, crippling, and near-sighted. The necessities of the case have nevertheless greatly extended the educational responsibilities and expenditure of Government. But at the same time there has been (1) a revival of denominational opinion, indicating a strengthening of the group-instinct in antagonism to centralised control; (2) an increase in the number of efficient private schools, including some which are doing valuable work of an experimental kind; (3) a growing sense of the educational value of art and of other agencies which cannot be organised by government; and (4) a concentration of the political influence of the local authorities, which resent any drastic action on the part of the Board of Education while glad of its guidance and of its financial aid. The range of the educational problem (especially as involving medical treatment, the provision of meals for underfed children, and reforms in housing and social environment) has also been more clearly realised, with the result that a great extension of State action is admitted as necessary, while at the same time the proportionate task to be assigned to the central authority of the State in educational policy as a whole is not, as usually defined, much larger (when the extended scope of the question is taken into account) than before.

#### REFERENCES.

- Adam Smith. *Wealth of Nations*, Book v., chapter 1, articles ii. and iii.  
 William Godwin. *Enquiry concerning Political Justice*, 1793.  
 Robert Owen. *A New View of Society*, 1816.

- T. R. Malthus. *Political Economy*, 1825.  
 Jeremy Bentham. *Chrestomathia*, 1816  
 „ „ *Constitutional Code*, 1830.  
 W. Lovett and others. *Address to the Working-Classes on the subject of National Education*, 1837.  
 Thomas Carlyle. *Latterday Pamphlets*, 1850.  
 Edward Baines and others. *Crosby Hall Lectures*, 1848.  
 John Stuart Mill. *Principles of Political Economy*, 1848.  
 „ „ *On Liberty*, 1859.  
 John Ruskin. *Unto this Last*, 1860.  
 „ „ *Time and Tide*, 1867.  
 „ „ *Fors Clavigera*, 1871.  
 Wordsworth Donisthorpe. *Individualism*, 1894.  
 James Bonar. *Philosophy and Political Economy*, 1893.  
 A. V. Dicey. *Law and Public Opinion in England*, 1905.

## John Ruskin.

(1) The life of John Ruskin (1819—1900) falls into four periods: (i.) 1819—1842, education, mostly private, followed by course at Oxford; (ii.) 1842—1857, writing on art (*Modern Painters*, vol. i., published 1843; vol. ii., 1846; *Seven Lamps of Architecture*, 1849; *Stones of Venice*, 1851—1853; *Modern Painters*, vol. iii., 1856). His writings on art showed a strong undercurrent of ethical and economic purpose; (iii.) 1857—1872, the period of his chief economic and educational writings (*Political Economy of Art* [“A Joy for Ever”], delivered at Manchester, 1857; *Unto This Last*, 1860; *Munera Pulveris*, 1863; *Sesame and Lilies*, 1865; *Crown of Wild Olive*, 1866; *Time and Tide*, 1867; *Fors Clavigera* begins 1870); (iv.) 1872—1900, period of failing powers ending in years of cloud and withdrawal.

(2) Ruskin's criticisms of education began in *The Stones of Venice*, vol. iii., Appendix 7 (published 1853). In this essay he argues for universal education enforced by the authority of Government, and he protests against the over-valuing of erudition (especially classical erudition) in higher education; against the neglect of physical science as a factor in liberal culture; and against the failure to teach the reciprocal obligations of citizenship. He con-

cludes: "I hold it for indisputable that the first duty of a State is to see that every child born therein shall be well-housed, clothed, fed, and educated till it attain years of discretion. But in order to the effecting this, the Government must have an authority over the people of which we now do not so much as dream."

In *A Joy for Ever* (lecture delivered in Manchester, 1857, and published as *The Political Economy of Art*) he carried this idea further. "I believe that the masses of the people have a right to claim education from their Government, but only so far as they acknowledge the duty of yielding obedience to their Government. I believe that they have the right to claim employment from their governors, but only so far as they yield to the governor the direction and discipline of their labour." "The first interference of Government should be in education. In order that men may be able to support themselves when they are grown, their strength must be properly developed while they are young, and the State should always see to this—not allowing their health to be broken by too early labour nor their powers to be wasted for want of knowledge." "I believe that all youths, of whatever rank, ought to learn some manual trade thoroughly. . . . In literary and scientific teaching, the great point of economy is to give the discipline of it through knowledge which will immediately bear on practical life. Our literary work has long been economically useless because too much concerned with dead languages."

. . . "I know well how strange, painful or impracticable these suggestions will appear to most business men of this day; men who conceive the proper state of the world to be simply that of a vast and disorganised mob, scrambling each for what he can get, trampling down its children and old men in the mire, and doing what work it finds must be done, with any irregular squad of labourers it can bribe or inveigh together and afterwards scatter to starvation. A great deal may, indeed, be done in this way by a nation strong-elbowed and strong-hearted as we are, not easily frightened by pushing or discouraged by

falls. But it is still not the right way of doing things for people who call themselves Christians" (§ § 127, 128, 129, 131).

Ruskin was encouraged in this view by his study of the writings of Thomas Carlyle and of the social and educational reforms of Frederick the Great.

(3) Ruskin's plan of national education and of industrial organisation was more clearly defined in the preface (1862) to *Unto This Last* (the chapters of which were published in the *Cornhill Magazine* in 1860), viz., (1) "training schools for youth, established at Government cost and under Government discipline, over the whole country," in each of which the child should "imperatively be taught (a) the laws of health and the exercises enjoined by them; (b) habits of gentleness and justice; and (c) the calling by which he is to live;" (2) manufactories and workshops, entirely under Government regulation, for the production and sale of every necessary of life and for the exercise of every useful art; (3) Government provision of work for all unemployed, accompanied (for the work-shy) with "compulsion of the strictest nature"; and (4) old-age pensions, "honourable instead of disgraceful to the receiver."

This book has had more widespread influence in forming political opinion than any other work of Ruskin. It coloured the aspirations of many of those who (from 1884 onwards) were the founders of the Labour Party.

The details of a plan of national government, including educational reform, were set out in *Time and Tide*, letters to a working man published in 1867, but in this book Ruskin loses his grip upon the conditions of practicable reform. At last (in *Fors Clavigera*, 1871—1884) he seems to have abandoned in despair the hope of a coherent organisation of English national life under present economic conditions. He then based his hope of social regeneration upon the influence of a group of citizens sharing the same ideal of personal life and voluntarily submitting in complete obedience to it.

(4) Ruskin's great service to educational thought in



England lay in his imparting to it a nobler and more inspiring ideal of social values and of public service. He taught that the wise use of wealth is found in the development of a fine quality of human life. Therefore hygiene, physical training, a love of nature, hand-work, the cultivation of a sense of beauty, and the study of literature were essential parts of the course of education which he desired to see possible and obligatory for all.

But his plan of national education was inseparably bound up with his plan of government and with his ideal of national life. He believed in a highly organised State the members of which, united in their moral purpose, would willingly submit themselves to lifelong discipline under wise government. His ideal was a classified society based upon reciprocities of economic and moral obligation and controlled by an almost feudal hierarchy of appointed officers chivalrous in social service.

Ruskin's fundamental position is that individual welfare depends upon the right organisation of the State, and that individual and social well-being alike proceed from well-planned co-operation and are marred by competitive struggle. The right government of a nation he conceives to be in the hands of an uncorrupted aristocracy, partly but not wholly hereditary. His ideal for the economic and social organisation of a modern country may be described as a new feudalism.

#### REFERENCES.

- J. Ruskin. *Stones of Venice* (vol. iii., appendix 7).  
 „ *A Joy for Ever* (especially in Addenda "Right to Public Support").  
 „ *Modern Painters* (vol. v., part ix., ch. xi.).  
 „ *Unto This Last* (especially the Preface).  
 „ *Crown of Wild Olive* (Lecture IV., "The Future of England").  
 „ *Time and Tide* (especially Letters XIII., XVI., XVIII., XXIII., XXV.).  
 „ *Sesame and Lilies* (both in "Kings' Treasuries" and in "Queens' Gardens," but especially the lecture on "The Mystery of Life and its Arts," printed in this volume).  
 W. Jolly. *Ruskin on Education* (London: George Allen, 1894).

## The Work of the Central Education Authority.

(1) The central authority began as a somewhat clumsy weapon for enforcing religious uniformity.

(2). In its modern form, as an organ of administration, it began with (a) the appointment (by the Home Office in 1833) of Government inspectors, with educational duties under the Factory Act, and (b) the establishment of the Poor Law Board in 1834. The Committee of Council on Education was appointed in 1839. The Committee (afterwards the Board) of Trade served as a rudimentary central authority for technical education from 1836, and, on a more comprehensive plan, from 1841. The continuous inspection of educational endowments by an organ of the central authority was initiated by the establishment of the Charity Commission under the Charitable Trusts Act, 1853. The action of the central authority (in the form of temporary executive commissions) for the reform of Oxford and Cambridge began in 1854 and 1856. In 1855 the Civil Service Commissioners were appointed "to make provision for testing, according to fixed rules, the qualifications of the young men who may from time to time be proposed to be appointed to the junior situations in any of Her Majesty's civil establishments." The re-organisation of the government of the great Public Schools (by a temporary special commission) took place in 1868. The re-shaping of schemes for the administration of other endowments for secondary education was vigorously undertaken by the Endowed Schools Commissioners, who were appointed in 1869 and transferred to the Charity Commission in 1874. The consolidation of the powers of the central authority for elementary education began with the Elementary Education Act, 1870. In 1888, an Agricultural Committee (developed into the Board of Agriculture in 1889) was entrusted with a Parliamentary grant for the promotion of agricultural education. The Technical Instruction Act, 1889, made the Science and Art

Department the central authority for technical education. In 1889 the Treasury grant to University Colleges began. The Board of Education Act, 1889, unified the Elementary Education Department and the Science and Art Department, and gave powers for the transference to the new Board of Education of the educational functions of the Charity Commission. The Admiralty and War Office have their own educational institutions.

(3) The main functions of the different branches of the central authority for education are: (a) inquiry and report; (b) subsidy, upon terms fixed by regulations subject to Parliamentary criticism; (c) continuous inspection; (d) audit of the accounts of local authorities; (e) regulation of conditions of factory and other employment; (f) supervision of educational endowments; (g) certification of teachers for public elementary schools; (h) approval of educational bye-laws proposed by local education authorities; (i) enforcement of a minimum of elementary education; (k) power to default local authorities which fail in their duty under the Education Acts; (l) control of examinations for admission to the Civil Service; (m) diffusion of information on educational matters.

(4) The different branches of the central authority in England which exercise educational functions are the Board of Education, the Local Government Board, the Home Office, the Board of Agriculture, the War Office, the Admiralty, the Civil Service Commissioners, and the Privy Council (for the amendment of University statutes).

#### REFERENCES.

- Graham Balfour. *Educational Systems of Great Britain and Ireland.*  
For educational finance :—
- Return for the year 1904—1905 relating to Education in the United Kingdom. House of Commons paper No. 305, 1906 (London: Eyre & Spottiswoode).
- Lord Sheffield's paper on the Finance of Education in England and Wales (published in the *School Government Chronicle*, November 6th, 1909).

## **The Work of the Local Education Authority.**

1. The main duties of the L. E. A. in regard to elementary education are :

- (a) The supply of any deficiency of public school accommodation, with the necessary powers to acquire and hold land, to provide buildings, furniture, apparatus, etc., and to accept transfers of schools or educational endowments.
- (b) The enforcing of the provisions of the Education Acts relating to school attendance, and the making and execution of by-laws for compelling attendance at school.
- (c) To levy rates as required to meet any deficiency in the school fund.
- (d) To manage provided or Council schools through a body of managers, and to maintain those schools in efficiency.
- (e) To maintain and keep efficient all non-provided schools within their area which are necessary, having for that purpose control over the secular instruction given in those schools.
- (f) To provide for the medical inspection of children immediately before, or at the time of, or as soon as possible after, their admission to a public elementary school and on such other occasions as the Board of Education may direct.
- (g) To make such reports and give such information to the Board of Education as the Board may from time to time require.
- (h) To enable blind and deaf children resident in their district, for whose elementary education efficient and suitable provision is not otherwise made, to obtain such education in a suitable school.

2. The main duties of the local education authority (in the case of a County or County Borough Council) in regard to higher education are :

- (a) To consider the educational needs of their area.

- (b) To take steps, after consultation with the Board of Education, to supply or aid the supply of higher education.
- (c) To promote the general co-ordination of all forms of education.
- (d) To apply to that purpose all or so much as they deem necessary of the residue under section 1 of the Local Taxation (Customs and Excise) Act, 1890, and to carry forward for the like purpose any unexpended balance of that residue.

#### REFERENCES.

- Edwardes Jortcs and Sykes. *The Law of Public Education* (especially pp. 36—39 and pp. 48—52).  
 The Elementary Education (Blind and Deaf Children) Act, 1893 (Section 2).  
 The Education (Administration Provisions) Act, 1907 (Section 13 (b)).

### The Trend of Educational Thought.

1. In English administration, all officials of the Central and Local Authorities are subject to the common law. There is no *droit administratif*. The powers and duties of the Central and Local Authorities are defined by statute, supplemented by codes of Regulations and by Orders which, if not held by the Courts to be *ultra vires*, have the force of law so long as they remain in operation. No officers appointed by the Central Authority serve as members of the Local Authority.

2. In English education, neither the Central Departments of State nor the Local Authority nor both acting together have any monopoly of control or of provision. Large freedom is given for private and associated enterprise. Educational endowments, supervised by the State, give to many institutions a semi-independent position. English teachers are not Civil servants. The law and public opinion in England regard education as a quasi-public service.

3. The stunted yet persistent growth of the administrative authority of the State in English education

illustrates the national preference for a middle way between the extremes of centralised bureaucracy and of unregulated *laissez-faire*. The piecemeal organisation of the Central Authority has been the result (a) of the historic separateness of different branches of national education, (b) of Benthamite preference for *ad hoc* authorities, and (c) of the stubborn resistance shown to the increase of State authority in education by each in turn of the different groups of political thinkers, all of whom feared to entrust to the State powers which might be used in a manner hostile to their social ideal. Each great advance towards democratic government has been followed by an increase in the powers and responsibilities of the central authority in English education. But the result has been a balanced combination of central and local influence, and not concentration of authority in the hands of an official class.

• 4. The trend of educational thought in England during the last twenty years has been towards (1) unification of the different branches of the central authority; (2) concentration of educational responsibilities in the hands of one local authority, established upon a municipal or county basis; (3) co-ordination of all grades of education; (4) raising the educational minimum for the whole population; (5) prolongation of the period of compulsory education; (6) extension of the control of elected local authorities over all forms of education which are mainly supported out of rates and taxes; and (7) increasing attention to the physical side of education and to school hygiene.

M. E. S.

## A SYSTEMATIC REVIEW OF THE PRINCIPLES OF EDUCATION.

### INTRODUCTORY.

Meaning of 'systematic' study of education: compare Systematic Theology, Medicine, Jurisprudence. One purpose of this course is to bring the varied topics of inquiry into 'systematic' relation. This involves special attention to the consistent use of technical terms.

From the student's point of view the system is set before him not as an end achieved, but as an introduction to his own thinking: every teacher, with advancing experience, makes his own system; but lack of training in these habits of thought leads to a defective result. See Findlay: *Principles of Class Teaching*: \* Introduction.

### SECTION I.

#### EDUCATION IN ITS BEGINNINGS.

*Chapter 1.* Man as part of the animal creation.

(a) A humble account of education—as provision for the progress of the species: above all for the young of the species.

(b) Other animals cannot be "educated." Man has various instincts, but they do not rule him, for he lives, and survives by utilizing *experience*. Human progress is expressed in terms of mind (though we no longer preach contempt for the body).

(c) Man is, par excellence, the social animal.

(d) And—the discontented animal! It is as idealist, as worshipper that man finally parts company from the brute. Formal education began when the young were taught to share in the "higher life" of the adult.

\*As this book is so often referred to in the Syllabus, in future the abbreviation P.C.T. will be used.

REFERENCES.—Bagley or Reudiger, Chap. 1. The general biological law of “adaptation to environment” can best be understood from elementary text-books of natural science or anthropology. For fuller treatment, see Horne, *Philosophy of Education*. For wider study, the writings of Galton, now published in cheap editions, and the *Eugenics Review* bear upon this topic. O’Shea, *Education and Adjustment*, is an elaborate exposition of the themes of this section, and gives ample references on most topics. Also James, *Talks to Teachers*, Chaps. 3-7.

## Chapter 2. The Young of Man.

(a) Schooling (a better term than Education) takes its rise in *deliberate* plans for enlarging the experience of “the infant.” The infant is “helpless”: some species prosper by an extended infancy. The theory of Fiske. Application to one problem of present-day interest:—benefit, and peril, from the Continuation School.

(b) Others, besides the young, are helpless; viz., those who are defective in mind or body. Civilized man treats these in a manner different from that of the brute:—a difficult problem in Eugenics, now attracting universal attention.

(c) This extension of schooling depends upon relief from economic pressure. Here again, indefinite extension incurs perils of its own. Hence class struggles to secure good schooling are intimately connected with economic causes: schooling is relied upon by a dominant group to help to maintain the stock in competition with rivals.

REFERENCES.—Fiske’s original paper, *The Meaning of Infancy*, is now reprinted (Houghton, Mifflin & Co.): with it Butler, *Meaning of Education*, Chap. 1, should be taken.

## Chapter 3. The origin of educational institutions.

(a) Schooling begins when *deliberate*, organized, continuous effort is made to help the young. And first, in the family.

(b) Higher stages are reached when the ministers of religion and, finally, the nation itself (the State) accepts responsibility.

(c) Apart from these, specific “classes” in the community early found their interest in the institution of



plans for schooling. (Vocational or Technical Education.)

(d) Gradually the "teacher" emerged, as a separate factor in the process. (Bagley, pp. 25-32.)

(e) A tentative definition of schooling in terms of its origin:—a definition which accounts for the past, but says nothing of the future. Hence the theme of the next Section.

(f) From the definition we derive subsequent Sections for the further study of Education:—Aim, Organization, Practice.

REFERENCES.—*The Old Testament* is the most accessible source material for (a). Davidson's *Hist. of Education*, Chaps. 1-3. Monroe, *Text Book*, Chap. 1, gives further references to anthropological studies. For the definition compare also P.C.T., Chap. 1.

## SECTION II.

### THE END OR ENDS OF SCHOOLING.

#### Chapter 1.

(a) The relation of Ethics to the study of Education. This Section the most difficult to handle of all, because men differ fundamentally as to the ends of human life. Yet to ignore the inquiry is to discard the patent facts of experience. An exposition of theory which would exclude ideals is unpractical.

(b) Education is therefore a *normative* science; (compare with other social sciences). Standards of satisfaction control behaviour: the scholar's conduct and the teacher's conduct. Strife is inevitable: the student's task is to survey the field of struggle—and, in due time, to choose his side.

REFERENCES.—Mackenzie's *Ethics*, Chaps. 1, 11, is very readable. (Other elementary text books of Ethics may serve the same purpose.) The opposite view in Bain, *Education as a Science*, is criticized in P.C.T., Chap. 1; compare Bagley, p. 42, and his reference to O'Shea.

(c) The situation as regards morals applies still more to varieties of religious and spiritual experience. Paramount factors in human progress cannot be dismissed from the theory of Education by a theorist's proposal to confine his attention to what is "secular."

*Chapter 2.*

(a) An appreciation of the forces which create current opinion is assisted by historical inquiry. This can be conducted on two parallel lines: (i.) the influence of great movements from the dawn of culture to the present day:—Christian, Mediæval, Renaissance, etc. These can be represented by modern terms, such as the demand for Liberal Education, for Equipment, etc. (P.C.T., pp. 23–27). (ii.) Arising from such movements, and influencing them in turn, are the theories of great thinkers and schoolmen:—from Plato and Aristotle to modern times. Chief modern writers, Locke, Herbart, Herbert Spencer, Dewey. (iii.) Rousseau and Pestalozzi in ‘returning to Nature’ were in reality transferring to Education, the current doctrines of political liberty.

(b) These conceptions survive, on the one hand, as the stock-in-trade of popular discussion; on the other hand they provide formulæ (such as ‘training of character’) for text books of education: the most recent is “Social Efficiency.” The test of their worth depends upon their transference to practice, *i.e.*, Sect. II. must be applied to Section III, IV, etc.

(c) A complete account of educational aims is a description of the perfect man, the finest product of his time. Such a description amounts to little more than a list of qualities and talents: it would lead nowhere. We revert to the description of facts in Sect. I.

REFERENCES.—Dewey: *Ethical Principles in Education* (Blackie & Son). Dewey: *Educational Essays* (Blackie & Son). Locke, Herbert Spencer, etc., are readily accessible in libraries.

*Chapter 3.*

(a) The previous Section (Chapter 1 *b* and *d*) displays already the dualism which confronts us, between the actual and the ideal; adaptation to the present does not satisfy the longing for progress.

(b) The young, the ‘coming race,’ who are the teacher’s concern, seek adjustment to an environment, which they discard as ‘out-of-date’ as soon as they have mastered it!

(c) The conflict between the fixity of truth and the evolution of human experience may be acutely felt when it touches morals and religion; all the more should the teacher, *as such*, refrain from presuming to reconcile the paradox on behalf of the coming race.

(d) Professional responsibility is limited: (i.) by the immature nature of the scholar; (ii.) by the restricted field of authority claimed by the school (compare Section III, 5); (iii.) by the public nature of the teacher's office: he is not an intimate personal guide (Section III, 7) and he may reserve his personal freedom.

(e) Hence we justify the acceptance, in this as in other professions, of 'the ethics of the age.' Moral influence may be intense in quality, without aspiring to be 'advanced' in theory.

#### Chapter 4. Ideals in process of development.

(a) Conduct, like other elements in experience, is an affair (i.) of habit, (ii.) of thought (Chapter 6 below).

(b) Habits of behaviour largely the outcome of suggestion, intuition, and of vague (though, in the adolescent, of lively) aspiration. 'We live by admiration, hope, and love.'

(c) Ideas of behaviour also issue from concrete experiences. Their emergence in the focus of consciousness, as imperative 'laws,' still more as matter for studied reflection or criticism, should not be hastened. Forcing destroys wholesome fruit in all forms of life. (Discussion of precocity and backwardness.) Reference to Arnold of Rugby as below.

(d) Character not complete when school has said good-bye to us. The culmination of moral experience is still far distant. "Youth shews but half" !

(e) Hence the aim of schooling must include the direction of tastes, *i.e.*, of standards of satisfaction, but this not as a separate process. The special problem of instruction (in morals, ethics, civics, etc.) concerns Section V. And as concerned with social experience, it reappears in Section VII.

• (f) This direction is part and parcel of the entire task undertaken by the teacher. The fund of habits, and of ideas which in psychological terms make up experience, is accompanied by an ever varying desire for a 'better life.'

(g) In other words, the young should so live as always to be open to idealism; along with aims which conserve the physical frame and enlarge the (objective) experience, we admit an aim a (subjective) tendency towards a higher life. This, if we wish, may be described as adjustment to a spiritual environment. "The world is too much with us."

REFERENCES.—Sadler: *Report on Moral and Religious Instruction* (2 vols., 1909) contains much material: including the present writer's "Growth of Moral Ideas in the Young" (reprinted from *Educational Times*, London, Feb., 1907). Hobhouse: *Morals in Evolution* (for comparison with primitive races). Horne: *Philosophy of Education*. For adolescence, Arnold of Rugby, *Life and Sermons*; Slaughter: *The Adolescent*; also Stanley Hall's voluminous work on *Adolescence*. Mark: *Unfolding of Personality*.

### Chapter 5. Mental powers in process of development.

(a) False theories of mental structure established the doctrine of formal discipline; which persists to-day as a grave source of error. (Read especially Bagley, Chap. 13.)

(b) With Pestalozzi we witness the first thorough attempt at a practical recognition of development in child-nature. Hence scientific pedagogy takes its starting point from Pestalozzi and his disciples, Herbart and Froebel.

REFERENCES.—Holman's or Green's *Pestalozzi*. Felkin's or Hayward's books on *Herbart*. Herford: *The Student's Froebel*.

• (c) From the life of instinct to the life of intellectual and moral freedom. (H. T. Mark as above.)

(d) The possibility of arrest of development or its opposite through unsuitable environment or experience. (Compare 4 c above.)

(e) The school does not create mental powers, nor does it, in the selection of pursuits, aim directly at their cultivation: but genetic psychology helps the teacher to decide

as to order and sequence: and it interprets what goes on in the school; thus aiding the study of Method '(Section VI.).

*Chapter 6. Experience in process of development.*

(a) The happenings and circumstances of daily life, whether of school or home, are the soil in which both ideals and mental powers grow.

(b) Abstractly, these experiences may be differentiated as (i.) habits of action, (ii.) ideas (space, size, time, etc.).

(c) Concretely, an expanding range of 'fields' may be observed:—from the cradle to maturity (v, 2 (c) and (e)). Influence of culture epoch theories: but 'the past' intermingles with 'the present.'

(d) Reconcilement: offered in Dewey's "The Child and the Curriculum."

*Chapter 7. Development of the physical frame.*

(a) As an aim for the public school, this obligation has only been practically recognized in recent times: reinforced by advance in hygiene and in physiological psychology.

(b) The adjustments controlled (not always wisely) by the school are directed to meet modern modes of living. Contrast between the working man and the indoor worker.

(c) Compromise between the ideal of perfect health and ideals of mental and moral development.

(d) Shall the school undertake to feed or clothe its scholars? Many institutions, both for wealthy and indigent scholars, do so. This is a problem for Section III, where the rival duties of corporations are considered. Here we only decide that the scholar's life is one, body and spirit together: we cannot 'aim' to educate a starving scholar.

*Chapter 8. Community Life in process of development*  
(Section I, Chapter 1 c).

(a) The individual and his fellows afford another contrast.

(b) Early theories of education neglected this factor in our problem: the influence of Arnold of Rugby on English pedagogy. Modern studies in sociology, and the popular influence of socialism may restore the balance.

(c) School is a community created for the scholar: his normal growth welcomes a widening circle of companionship.

(d) Ideals, habits, ideas grow by social contact: but solitude is equally necessary to their culture.

(e) Society demands of the adult that each shall bear his own burden:—hence the plea for vocational education.

REFERENCE: Cooley: *The Social Consciousness*, Chap. 1, or other introduction to sociology.

### Chapter 9.

(a) Review of 'aims' for the school, in terms of Chaps. 4 to 8:—unfolding of tastes and ideals, development of mental powers, enlargement of experience, attention to health, adaptation to society. Where one of these conflicts with the other (*e.g.*, Chapter 7 c) the solution must be left to compromise.

(b) Each of these is conditioned, in each grade of school or political community, by varying views as to the responsibilities of the Family and the State, etc., for the rising generation. The theoretical exposition of possible aims can be realized in practice only so far as these 'corporations' (Sect. III.) desire teachers to achieve them.

### Chapter 10. The obligations imposed on the teacher.

(a) Reservation of inner freedom, combined with a tolerant submission to the public code, in his public school life (both as regards curriculum and corporate life).

(b) Recognition of laws of growth in morals, making the teacher willing to accept a simpler standard in childish than in adult conduct.

(c) Refusal to relegate morals to any compartment of school instruction or experience. The socio-ethical impulse should inform every part of the system (and not

merely lessons in the Humanities) (see Section V below).

(d) Danger of specific teacher habits, induced by the calling, which tend to moral retrogression.

REFERENCES.—Sadler, *Report on Moral Instruction and Training in Schools*, gives a complete survey of current opinion and practice. Palmer, *Ethical and Moral Instruction in Schools*, contrasts with the propaganda of the Moral Education League.

### SECTION III.

#### THE ORGANISATION OF EDUCATION.

(In the lecture course only part of this Section will be dwelt upon.)

##### Chapter 1.

(a) Connection with Section I (how does "adult society" set about its task?) and with Section II. What is the logical relation of Sections II, III, IV? Is ours the right order?

(b) Nature of our enquiry: included also in the science of politics. An historical study: a "comparative" study. Its documents are, principally, the official regulations and enactments issued by the various "authorities" (see Chap. 3).

(c) Importance of the inquiry to teachers, who serve these authorities and need to master the principles underlying a complicated organization.

REFERENCES.—*The Code: Regulations for Secondary Schools. Annual Reports of Local Authorities*, e.g., Manchester Education Committee. Graham Balfour: *Educational Systems of Great Britain and Ireland*. Sadler's *Reports to Local Authorities* (1904-7 various).

##### Chapter 2.

(a) The "corporations" (term taken from Seeley) which exercise a voice in creating and controlling the school: Family, Vocation, Church (used in the widest sense of the term), State. The rivalry of these claims gives rise to grave conflicts which increase in gravity when Schooling has become more appreciated as a factor in progress. From

these corporations, there emerge "authorities" entrusted with the work.

REFERENCES.—Bosanquet : *The Family*. Snedden : *Vocational Education*.

(b) Training of the scholar in appreciating his relation to the Family and the State (Section VII, 6 and 17).

### Chapter 3. Classification of the authorities.

(a) A central, comprehensive authority (legislative, executive).

(b) With many local authorities (legislative, executive, again).

(c) The governing body or managers of each institution.

(d) The principal teacher, or body of teachers, in a school (regarded as administrative officers).

Is each of the four necessary for adequate control of a school? Institutions in which one or the other is dispensed with.

### Chapter 4.

The functions of each authority are limited according to the special qualifications possessed by each for promoting the aims of education. Chaps. 5—8 below survey these functions.

REFERENCE.—Rein : *Outlines of Pedagogics* (Swan, Sonnenschein). Also in German, Rein's larger work in 2 volumes.

### Chapter 5.

Of Educational institutions: various systems of classification according to the age, capacity, culture of the scholars. Home tuition *v.* school. Private *v.* Public: Primary, Secondary, College.

Classification according to 'vocation': Technical *v.* Liberal. According to the extent of the responsibility: Partial (Continuation, Sunday, Extension Teaching). Boarding *v.* Day.



*Chapter 6.*

The oversight of schooling—including the relations of one type of institution to another. Regulations for attendance, for curriculum, for leaving certificates. (Compare Sect. VII, 15.) Distribution of these functions between the authorities. Neglect at this point may thwart the higher aims of the school.

*Chapter 7.*

Material provision for schooling. Public aid and private endowment: the school Budget: land and buildings: apparatus. Large spaces indispensable to effective corporate life (Sect. VII.). Country Schools for Town Children. School Camps.

Effect of methods of payment on methods of teaching: payment by "results"; by individual attendance: by subjects: payments for ability (scholarships and prizes).

*Chapter 8.*

The office of the teacher. Professional *v.* non-professional teachers (compare Chap. 5 above). Status, qualifications, internal organization. Relations (a) to controlling authorities; (b) to parents (compare Sect. VII, 17); (c) to scholars. State control of, and inspection of, the teacher.

REFERENCE.—Various legal handbooks and professional directories afford information.

*Chapter 9.*

Advisory and Reporting Functions. School records as material for scientific statistics.

REFERENCE.—Students can see in the Christie Library the volumes of *Special Inquiries and Reports* (Board of Education) and *Annual Reports of U.S. Bureau of Education*.

## SECTION IV.

## GENERAL REVIEW OF THE TEACHER'S FUNCTIONS.

(a) Refer back to Sect. I, 3 (f). The aims being now determined, and a machinery or organisation devised, we

enter on the teacher's own field, where he is left, with more or less independent powers, to engage in the Practice of Education (schooling).

(b) Scientific pre-suppositions:—an investigation of the mental life of the young (sometimes called Child Study, sometimes Genetic Psychology); and of the physical life (School Hygiene).

(c) Cultural pre-suppositions:—an acquaintance to the best of his powers with human experience, *i.e.*, with those fields of intellectual and practical adult activity to which it is the purpose of schooling to introduce his scholars. He should know the goal towards which the scholar is gradually reaching out. (Sect. II, Chap. 6.)

• REFERENCE.—Dewey : *The School and the Child*, Chap. 1, should be read here.

(d) Setting out from these studies, he determines within limits (Sect. III, 6) the pursuits or occupations his scholars are to engage in: this is discussed in Section V. Curriculum.

(e) The more detailed inquiry into the manner in which these various occupations are pursued by the scholar is technically described as Method (Section VI.).

(f) We observe also that although Curriculum and Method are an individual matter for each scholar, the process, except in private tuition (Sect. II, 8, and III, 5), is carried on in groups: the very act of bringing the scholars together creates a community. This social life has its own characteristic features and consequences, quite apart from the pursuits he selects. Hence he must study the school as an institution (Section VII.).

(g) (*omitted in this Course*). Having surveyed the entire field of Practice we can then revert to Sect. III, 7, prepared to present 'requisitions' to educational authorities, *i.e.*, to indicate the equipment, apparatus, etc., necessary to enable the scholars to achieve the ends proposed.

## SECTION V.

## THE PRACTICE OF EDUCATION. A. CURRICULUM, THE PURSUITS OF YOUNG PEOPLE AT SCHOOL.

*Chapter 1.* Point of view assumed in the theoretical inquiry here proposed.

(a) Local limitations as admitted in Section III, §, are disregarded.

(b) The selection of pursuits conforms in general terms to the Aims as discussed in Section II:—experience is treated as *growth*, from what is immediate, personal, self-absorbed to the wider, impersonal, remoter interests of the adult community.

(c) The scholar, in association more or less complete with his comrades in a class (see Sect. VII.) is to be occupied day by day in a succession of employments which to him have immediate meaning, to us have a remoter end in view.

*Chapter 2.* Treated also in Courses I and V, Mental Life of Children. The subject of experience, the Scholar.

Growth to the psychologist, is described in terms of mental 'form' or faculty of power: but for this inquiry we must picture it in terms of 'content,' i.e., of ideas, feelings, acts as these extend their range.

(a) The play-time of life. (P.C.T., Chap. 6.) Play distinguished from gambol. Spencer's theory of superfluous energy. Play, to the infant, is serious activity (Dewey, *School and Child*, pp. 48–80). Its objects are, necessarily, gathered from the behaviour of older persons. For more general reading, Ruskin, *Crown of Wild Olive*, Lect. I; for psychological interpretation, Groos, *Play of Animals; Play of Man*.

(b) A transition period, commonly regarded as extending from 6 to 8 years of age. *Note.*—Individual differences can readily be discerned by teachers: but it is difficult without detailed observation and record to determine how far any apparent variation is due to congenital

endowment (precocity or backwardness) or to the stimulus of environment (home influences). The stimulus which seeks to hasten growth is harmful, especially as such stimuli usually affect only one side of human nature, but • it is equally harmful to ignore precocity by compelling all children to proceed at the same rate.

• (c) The years of stability (average period 8-12). The period of play-acting has passed and henceforth such activities are continued as pleasure; the scholar is now a 'practical' person, a workman:—but his output different from that of the adult workman, especially in relation to the reward. Intelligence aids this work, but motor activity holds the first place. Differentiation in the field of childish experience: the House, the Garden or Farm, the Workshop, the Library and the unexplored world beyond.

(d) Another period of transition (13, 14).

• (e) The adolescent on a wholly different level of experience: intellectual and social interests now hold the field: the earlier life of play and of practical work is not forgotten, but a larger, more differentiated, range of experience now opens up. Slaughter: *The Adolescent*, Chaps. I, III and IX. The branches of a curriculum are now fully differentiated and discerned in their relations (Chaps. 5-13 below).

(f) The study of culture-epoch theories as assisting this investigation: the Herbartian scheme: Dewey's use of 'primitive man.' Danger in these analogies—illustration from use of weapons in hunting or warfare. *P.C.T.*, p. 30 (Rein, Hayward or Felkin as in II, 5).

### Chapter 3. The objective aspect of experience.

(a) For Time-Table purposes we classify school-room activities under labels such as Humanities and Natural Science; Mathematics and other abstract sciences; Arts of Symbolic expression (Languages and Music); Arts of Representation, Arts of Construction (Handicrafts): finally Recreation. *P.C.T.*, Chap. 3, or other comprehensive text books.

(b) The double problem, first to define the nature and function of these pursuits in adult life, *including their mutual relations*; secondly to discern their emergence and differentiation at successive stages in the scholar's growth.

(c) Hence, a complete scheme of school pursuits can be considered (i) lengthwise: tracing each branch from stage to stage, (ii) breadthwise: correlation at each stage between such of them as are functionally related. Danger in attempting to make schemes too elaborate on paper. Few scholars follow the series through, as planned for successive years.

(d) The search for a co-ordinating centre for the scholar's activities in the class-room. Various efforts at 'concentration' (*P.C.T.*, 43-48) indicate that the search is not yet complete. The difficulty is always to find a starting-point: a similar difficulty is felt by adults who lead a 'leisure' life.

*Chapter 4. The curriculum as influenced by specific educational aims.*

Chapters 2 and 3 display the theory in universal terms, but as schools are actually conducted, specific aims (Sect. II, Chap. 2) or specific types of school (Sect. III, Chap. 5) require that the scholar's experience shall be biased, at an earlier or later stage. Bagley, *Educ. Process*, Chap. 13-15; *P.C.T.*, Chap. 4.

[We can now take up the different branches of the curriculum and follow their course of development. Special Method in pursuing each of these branches is not treated in this syllabus, but is taken up by students in the discussion classes associated with Demonstration and Open Lessons. For these additional references for reading will be given as needed.]

*Chapter 5. The Humanities.*

(a) Story-telling as an enlargement of experience, and as a fine art. Fairy-tales a wholesome luxury, but not the staple diet (*P.C.T.*, p. 138). Qualities required in a

successful story: illustrations from the classics (Joseph the Dreamer, the Wanderings of Ulysses, etc.).

(b) The child as narrator:—Do children always demand an audience? The little child tends to live out the characters of his story: dual personality in young children.

(c) The extension of range after infancy:—The use of 'primitive man' during recent years. In addition to Dewey, see Katherine Dopp's books, also Hall, *Days before History* (copies in Departmental Library). The need for classical 'form' in such literature. At what age are Robinson Crusoe, Pilgrim's Progress, Ulysses appropriate 'fare'? (for poetry see Chapter 7 below).

(d) History and Geography emerging as distinct interests. From neighbourhood to country and empire: from past to present: from concrete to abstract. The scheme in the Demonstration School discussed in detail.

(e) The growth of abstract ideas:—Definition of concept and judgment a slow process, varying immensely in different individuals. Ideas of society, commerce, government in all its relations (and all these reacting on personal conduct) built up as a mental system, which wise direction of study in the Humanities can assist, but can scarcely establish apart from other influences.

The problem of Moral Instruction especially perplexing (Sect. II, Chap. 4, and references there).

(f) Humanistic studies reach their culmination in adolescence (Slaughter: *The Adolescent*, p. 89).

## Chapter 6. The Language Arts (First Stage).

(a) We call these arts "conventional": origin in the race and in the individual: the medium in which the "thinker" works.

(b) Native speech, dialect, foreign speech—all available for young children. Each complex of sounds, of vocables, conveys incomplete meaning.

(c) The difficulty begins with visualization: letters have no meaning. Motives are, however, at work by the

age of 5 or 6. Expression (motorization) should accompany the first efforts at reading.

(d) Mental processes to be observed (i.) the incentives (ii.) adjustments in hand and arm movements (also the eye in reading), (iii.) economy in attention—contrast between the beginner and the expert, (iv.) training in taste—an artistic form for the alphabet.

(e) The formation of bad habits (i) speech—due to bad environment: the school corrects the home, but also checks native vigour, (ii.) reading aloud can only be practised effectively in small classes or at home, (iii.) handwriting: early drill lays the foundation for a good “hand,” but often the good work is undone again, (iv.) spelling; most words acquired on the margin of attention. Spelling lists usually a waste of time, (v.) most errors can be eliminated by “smothering” rather than by “correction.”

(f) Hence, principles for the First Stage (covering some two years) —“Look and say”—“Look and copy”: choose what is (to the child) worth looking at! Care as to materials and tools:—chalk, pencil, pen, type, etc.

REFERENCES.—Huey: *Psychology and Pedagogy of Reading* (indispensable). O'Shea: *Linguistic Development and Education*. Johnston: *Art of Lettering*. P.C.T., Chap. 7.

### Chapter 7. The Language Arts (Second Stage).

(a) The art is now welcomed as an aid to experience. Reading far outruns composition: hence let *continuous* speech have full scope. The value of dramatic exercises. The active and the passive vocabulary (Dewey: *How we Think*, Chap. 13).

(b) The Book, in all its aspects is now of interest—its place in the handicrafts, and the arts.

(c) The child's library—a few good books will form his taste; the home can greatly help the school. Scrappy “Readers” should be abolished.

(d) The child's composition is, to him, a work of art; the value of letter writing.

(e) Drill for technical improvement in handwriting

and in recitation needs ample time. Poetry, to be appreciated, must be heard, learnt, and expressed.

REFERENCES.—Huey and O'Shea as above. *P.C.T.*, Chap. 8. Welton: *Principles of Teaching*, Chaps. 4-7 are valuable, but in some important features differ from the principles here laid down.

(f) Singing, the language of the emotions: the most primitive, and the most advanced, mode of æsthetic expression. Success entirely dependent on recognition of its value for experience. Elementary technique should be acquired at this stage. Song should embrace a wide range of experience: the gay as much as the heroic or serious. Learning a musical instrument.

REFERENCES.—The publications of the *London Schools Musical and Dramatic Association* well repay study. Also *P.C.T.*, p. 200, etc.

(g) A second language. Acute controversy as to method (New v. Old) only to be solved by the aid of psychology. The habit of resistance to the new medium has to be overcome. Speech before reading, hence French (or German) before Latin. A daily lesson imperative.

The right time to begin—when an intelligent motive can be realized. The first two years should establish the new habit.

REFERENCES—Stockton, in *Demonstration School Record*, where further references are provided.

## Chapter 8.

The derived (abstracted) sciences. (a) Phonetics. What interest has a child in his organs of speech? In the elements of sounds? Further investigation needed. Phonetic alphabets (written or oral) cannot aid in the synthetic work of reading.

(b) Grammar. A much older science; now tending to be discredited. Its value to be determined by its use to the learner. English grammar cannot easily accommodate itself to "classical" exposition. The art not to be acquired by analysis of forms, but by imitation and unconscious selection: the science to be delayed.

(c) The structure of words:—an incidental aid to



history and geography. Curiosity readily aroused in familiar names and epithets.

(d) Composition and Rhetoric:—formal methods greatly cultivated in France and in U.S.A.; also in Scotland.

REFERENCES.—Miss N. Dale's *Phonetic Reading Method*. For Grammar, see Welton's views, as above. *School Review* (Chicago), Oct., Nov., 1910, very important (copies in Deptl. Library). For structure of words, Trench, *Study of Words*; Isaac Taylor, *Names and Places*. For Composition, varied views are expressed in Bain's *Rhetoric*; Hartog, *The Writing of English*; Carpenter, Baker and Scott, *Teaching of English*, a standard work on the whole subject.

### Chapter 9. Literature after the age of 12.

(a) A problem not (as often supposed) of imagination, but of taste. Literature is in no sense "imaginative," except as needlework or carpentry can be so described. But it extends to higher levels of consciousness, and is an art which everyone practises, ill or well.

(b) The adolescent has a larger range of experience, intellectual and emotional: hence story and drama "appeal" to him: literature becomes to him the standard form for the expression of human story.

(c) But each year of life shews differences in individuals: you cannot make some scholars (or monarchs) "care for painting and poetry": Specialism, here or elsewhere, must be allowed some scope.

(d) Expression, as in earlier years, should accompany impression. Drama, recitation, essay writing need far more attention than they at present secure. Every variety of literary expression may be attempted.

(e) The study of literary history or biography a specialist pursuit:—not a substitute for enjoyment and artistic expression.

(f) A wide range to the term "literature." Every field of human experience finds its appropriate form of expression: the cultured mind, whether in science, handicraft or scholarship learns to choose good form—which tends to ally itself with good "content." The secondary

school relies solely on literature 'lessons,' instead of cultivating good style and pursuing good literature throughout. The "100 best books" include Huxley as well as Shakespeare. Many minds return to poetry with pleasure only in later years.

(g) Topics to be considered if time allows:—Children's own poetry, and poetry for children, *e.g.*, R. L. Stevenson's *A Child's Garden of Verses*. Does *The Blue Bird* (Maeterlinck) suit the child or the adult? Programme of the National Home Reading Union; The School and Class Library—*v.* The Public Library: The school magazine: The use of books of reference (*P.C.T.*, pp. 65, 66, 181-3, etc.).

REFERENCE.—Matthew Arnold's Introduction to *Wordsworth* (Golden Treasury Series) or to Ward's *English Poets* or some other standard work on the function of poetry should be studied in connection with this whole theme.

*Chapter 10. The Handicrafts (beyond the Infant stage).*

(a) Three main problems: (i) successive co-ordinations of mind and muscle; (ii.) the motive for making things; (iii.) the choice of material, tools and other features of technique (Board of Educ. *Report on Manual Instruction*, 1910).

(b) The order of development: from fundamental to accessory: shoulder to finger tip.

(c) *Motives*. The reform now in progress:—from formal exercise to a project intellectually conceived. Dewey, *School and Child*, pp. 80-88. But the wise choice of ends is not easy: teachers tend to follow stereotyped forms. Types of interest: (i.) the needs of the home (*e.g.*, Christmas presents); (ii.) the school:—younger scholars, school festivals: school buildings and equipment; (iii.) the correlated curriculum:—illustration from the Fielden School. (Compare Chap. 2 (c) above.)

(d) *Technique*. If correctly apprehended, the scholar's need should guide him in the choice of material and of tools. Resource, variety, effectiveness (in fact the intellectual value of the experience) can only be secured

by associating progress in technique with "desired ends." (Dewey, *School and Child*, pp. 78-80, also Scott, *Social Education*: the later chapters are very suggestive.)

(e) *Product*. The output is to be judged from the motive of the scholar, not as 'finished' product. Hence polish and decoration are only in place so far as the scholar (by suitable aid) comes to find satisfaction in beauty (see Sect. II, 4 e).

(f) The relation of constructive work to art:—Treat on similar lines to the relation of useful to fine art in literature (see Chap. 6 above).

REFERENCES.—Ruskin, *Two Paths, Lectures on Art*, etc., for general reading.

(g) Extension of the term Handicraft to include 'service,' in-door (domestic) and out-door (garden). The public school can fairly make the same demand on its scholars that the private family used to do on its members.

(h) The curriculum up to 12:—a general introduction (i.) to a large variety of material and tools, (ii.) to a multitude of problems which the scholar answers by bringing intelligence to bear on the objective world of constructed material, (iii.) the classification suggested above in Chap. 2 (c) considered in detail.

(i) Handicrafts during adolescence (i.) in the secondary school only a subordinate place:—a well educated scholar will make time to continue his 'hobbies,' (ii.) but artistic development may take a wider range at once personal and social, (iii.) the scholar who has to take to employment at 14 should find in the Trade School an extension of that intellectual interest in craft which began in the years 8-12.

(j) Handicraft in its social aspect. Many things worth making imply co-operation and division of labour. The class presents itself as a company of workers ready to share such efforts.

Scott: *Social Education* (of unique value); Baldwin: *Industrial Education*. For the psychology (in addition to Dewey) James: *Talks to Teachers*, and, more fully and

with many illustrations, O'Shea: *Dynamic Factor in Education*.

N.B.—For the treatment of Arts in relation to Handicrafts, a syllabus will be provided by Mr. Shelley separately (see forthcoming volume of essays, etc., connected with the Fielden School Curriculum).

### Chapter 11. Natural Science.

(a) The infant is an explorer, and learns at a prodigious rate. His sympathies with other forms of life (growing and moving) soon manifest themselves.

(b) The Object Lesson too formal and scholastic. Percept and concept take shape more on the margin than at the focus: the scholar cannot be made to think exactly to time with his class mates. Hence the value of gardens, benches, material where each can make his own association between movements and ideas, as in the laboratory at a later stage.

(c) Up to at least 10 years of age no formal 'knowledge': then the need (II, 1b and 6c) is realized for standards of measurement (the forerunner of physics) and for classification of natural objects:—the collecting instinct combines with intellectual curiosity.

(d) The subsequent scheme of study should answer in succession the simpler questions presented by the environment, geographical as well as scientific in the narrower sense. The motive is readily found from the events of experience.

(e) Distinctions of adult science are of small importance before 15: something can be learned from both the Biological and Experimental Sciences, but complete courses in any of these are out of place. The scholar, rather, is preparing for these through inquiry into the phenomena around him, putting meaning into these categories.

(f) Besides picking up much scientific information, the scholar between 10 and 15 should secure quite a definite *habit of thought and language* in the entire field of elementary scientific experience. What he is supposed

to know should be thoroughly mastered: and the rest, for the present, be taken on trust.

REFERENCE.—*Demonstration School Record*, Chap. 3.

*Chapter 12. Mathematics* (compare Sect. II, Chap. 5).

(a) Time, Space, Number, fundamental modes of thought: the school simply watches over their growth.

REFERENCE.—Clifford: *Common Sense of the Exact Sciences*.

(b) Mathematics the earliest of purely abstract studies: its two branches, Number and Form to be cultivated side by side.

(c) Being abstract, they exist if at all *in the mind*: motor or visual representations are merely props on which too much reliance must not be laid.

(d) Arithmetic:—no written work until 9 or 10: (see various papers by Marshall Jackman). Money sums of small importance. Practical appreciation of values and standards to come from the handicrafts. But drill for accuracy and speed quite congenial in the years of stability.

(e) "Practical Arithmetic" so-called: advantages and otherwise of the schemes now published under this title (apparatus for one of them may be seen at the Fielden School).

(f) Algebra and Theoretical Geometry only of value to scholars who can appreciate them: individual differences are striking. A habit of Mathematical thinking, when once established, becomes congenial.

(g) Reforms since 1902 in the teaching of these branches (Bd. of Educ. Report: Teaching of Algebra and Geometry, 1909).

REFERENCE.—B. Branford: *Studies in Mathematical Education*. Other references in *P.C.T.*, p. 260.

*Chapter 13. Physical Exercises and Recreation.*

(a) A clearer definition of terms required—thus: play is dramatic, a game is competitive.

(b) Most children need much time entirely at their own disposal: undifferentiated gambol, walking, running, by the very lack of idea or motive, are the most restful.

(c) Playing, *i.e.*, imitation of elders is serious effort to the little child (Chap. 2 *a*, above).

(d) Interest in games is social and comes later; it is not vividly felt till adolescence:—a special Anglo-Saxon trait.

(e) Interest in exercise, *i.e.*, *individual* proficiency and prowess—swimming, gymnastics, can be fostered from 8 years old, but finds its culmination after school years.

(f) Schools and 'systems' of Physical Exercise—remedial such as the Swedish: muscular such as the German: rhythmical and musical elements are also important.

(g) The organization needs close alliance with the life of the school as a community (Sect. VII).

#### Chapter 14. Construction of a School Time-Table.

(a) From the scholar's standpoint no Time-Table needed when once a motive for effort is discovered. The Kindergarten scholar is better without a Time-Table: the older the scholar the more readily he appreciates the need for mastering definite 'tools,' for allotting his day, for working with others.

(b) The rigidity of Time-Tables is an abuse due to obsolete theories of the curriculum: or to the complicated adjustments of a staff of teachers.

(c) Examples of attempts at reform:—Plan of including several branches under one rubric—thus: Humanities may cover Bible lessons, History, Geography, Literature, English. The separate studies gradually emerge in the scholar's experience (5 *d*, etc.).

(d) Every branch, if admitted, should receive full attention: if possible at the same hour daily: intensive occupation for a short time better than the opposite plan (*P.C.T.*, p. 119). The greatest evil is seen in a painful desire to give a nominal place to every branch in every class all through the school years. Real growth does not depend upon such formalism: if a class were to skip even Arithmetic for a year the disaster would not be irreparable.

(e) A period of two years in the school 'life' may be taken at a time, as covering a fairly defined stage in

development, and the pursuits planned for this stretch of time with considerable freedom for variation.

(f) The last year or two years should always receive special modification (even in the Primary School) as being on the threshold of a new mode of life (*P.C.T.*, Chaps. 9 and 10, and p. 253, etc.).

## SECTION VI.

### THE PRACTICE OF EDUCATION. B. METHOD.

#### *Chapter 1.*

(a) No hard and fast line where 'Curriculum' ends and 'Method' begins. In Curriculum we sketch, in more or less detail the succession of problems on which our scholars will engage: Method carries our study into further detail, analysing the modes of mental activity which are displayed during the proceedings—distinguishing those which are predominant and characteristic of each pursuit.

(b) The teacher's aim in this study: to acquire power in forecasting the proceedings of the classroom: to anticipate the relation between stimulus and reaction. Comparison with the treatment of a patient by the physician: the anticipation can only be general: disturbing factors always intervene: the practitioner must always be ready to recast his plan of procedure.

(c) The variety of minds in a class emphasizes the need for elasticity in the classroom. The forecast assumes an average standard, both of attainment and of attention: the achievement can only approximate to this forecast, and at best each individual is 'sacrificed' more or less.

(d) A mastery of Method, therefore, gives the teacher freedom by equipping him with power of rapid diagnosis and interpretation. Method relates the object (successful accomplishment of some pursuit—some desirable enlargement of experience) with the subject (the scholar who is invited to engage in that pursuit).

*Chapter 2.*

(a) The investigation of Method starts from a re-classification of the branches of a curriculum, under types of mental activity. Some issue in an extension of knowledge, others in acquirement of skill, others aim chiefly at emotional experience. But the unity of mental life prevents our pressing these divisions to the logical extreme.

(b) The decisive question, at any point in a lesson, is the activity which stands in the focus: but the teacher must recognize that much of value is experienced on the margin of attention. Each type of teaching, then, is differentiated by the distinctive mental process displayed at the focus.

(c) Since children only slowly grow to a power of continuous attention, an orderly Method is more difficult to forecast in younger classes.

(d) And an order in development (Sect. V, 2) can be traced in successive periods of growth to higher levels from infancy to adult life. We shall note the variety of types which have been analysed in genetic sequence. (Urwick: *The Child's Mind*.) Each new capacity, as it emerges, needs to be caught at its growing point. Our knowledge in this field is very scanty, and the following chapters only offer suggestions.

*Chapter 3. Method in a 'Kindergarten' class (up to 6 years).*

Here the focus shifts from moment to moment: the infant learns through play, *i.e.*, imitative activity: the immediate end, enjoyment of the pursuit, is adequate. Processes on a higher mental level work only in the margin of consciousness. Hence the teacher, as methodizer of play, has a comparatively simple task.

REFERENCES.—See Section V 2.

*Chapter 4. Period from 6 to 8.*

(a) Method here is largely an affair of motor control; pleasure is found in focussing the attention on imitation as provided in various arts.



(b) Hence a typical form of 'lesson' can be analysed, concerned in the acquirement of skill: and the laws underlying such acquirement control method in such arts at all later periods.

(c) But the play activities of the earlier period continue, and still govern the method in the enjoyment of literature, music, drawing, etc.

#### *Chapter 5. The organization of perceptual experience.*

(a) The instinct of curiosity has led already to the accumulation of large stores of information: at 7 or 8 years, the attention can be sufficiently controlled to direct on a settled plan the acquirement of knowledge at this lower level.

(b) The teacher can analyse the process of observation (*Anschauung*) and plan a method which will regulate the scholar's procedure. (*Welton: Prin. of Teaching, p. 73.*)

(c) But the motive (in the scholar's mind) for such observation will still be closely bound up with the practical activities which are his predominant interest.

(d) Here emerges one cardinal rule of Method: to be sure that the scholar finds some purpose in the pursuit to which the teacher directs him. (The Aim arising out of the Preparation in the Herbartian system of Steps.)

#### *Chapter 6. The organization of concepts.*

(a) Advancing to the 'years of stability' (Sect. V, 2c) the scholar, still an eminently practical person, begins to find a new intellectual pleasure:—in recognizing relations.

(b) Method here is regulated by the psychology of conceptual experience: its exposition has taken classical shape in the Herbartian 'steps.'

(c) But these Steps must not be applied indiscriminately to every field of experience:—it is rather the inevitable method of development in the child's mind whereby he seeks a better explanation, a firmer grasp, of the activities which have engaged his attention since infancy. Number and Form, classification of plants and animals, differentia-

tion of phenomena in time (History) and space (Geography) may emerge as separate 'studies' before the age of 12.

(d) Since thinking depends so intimately on speech, Method here requires special attention to appropriate language:—the definition, the technical term take shape as embodiment, or formulation of the intellectual product. The teacher's preparation (11, c below) should include this point, determining precisely the language which he will desire his scholars to adopt.

REFERENCE.—Welton, as above, and the *Herbartian Text Books*. *P.C.T.*, Chap. 13.

### Chapter 7. The mastery of technique.

(a) Even more characteristic of the years of stability is the increasing desire for definite achievement, in skill (advancing on 4 b).

(b) Method is here concerned with drill, relying on the power of sustained attention in mechanical repetition. By persistence in routine, muscle and nerve are adjusted to the automatic level; thereafter a stimulus may be relied upon to produce a uniform reaction without strained attention.

REFERENCE.—*P.C.T.*, Chaps. 14, 15.

### Chapter 8. Organization of formal reasoning.

(a) After 12 or 13, intelligent minds often find pleasure in argument, *i.e.*, in the complete deductive-inductive process, which in earlier years has only played its part below the threshold of consciousness.

(b) The process, surveyed at a wider range, is a race-process: and a lifelong process in each individual ('I shall know, being old').

(c) Method becomes more and more important because the scholar can give sustained attention to thought. He relies on language, written and oral; he learns much by discussion. And yet his progress must be in his own mind, independent of symbol or formula. Cramming, in all its shapes, is the substitution of inner apprehension by

outward forms: the crammer's method is the antithesis of true method.

(d) At first only a few branches of the curriculum can be treated at this rational level, viz., those where formal argument is felt to be necessary to intelligent interest: Mathematics, Geography, History as examples.

(e) Arithmetic and Geometry (Sect. V, 12) can be usefully 'studied' at successive growing points from infancy to adolescence.

(f) The science of Language (native or foreign) is often treated at this level: the controversy by no means settled. (Sect. V, 8.)

(g) Scholastic habit and tradition tempt teachers to try to rationalize all the pursuits of school without discrimination. The result with the less intelligent scholar is distaste: with the more intelligent, precocity. The mischievous result from the Kindergarten upwards can be readily observed in all types of schools.

### *Chapter 9.*

(a) The above analysis embraces the types which are current in text-books of Method. Many sub-types may be devised; these are usually treated as examples of Special Method, subordinate to the General Method which comprehends a number of branches: their only value to the student is in helping him better to interpret what he observes in classroom practice.

(b) The earlier types must not be taken as giving way to the later: a well-trained child does not cease to learn new arts in adolescence, nor can he learn them otherwise than by the laws for the acquirement of skill: but he should learn them better because he can now apply higher intelligence, and stronger self-control than he possessed at the age of 8.

### *Chapter 10. Universal conditions applying to all types.*

(a) The syllabus distributed into parts, technically known as 'Sections.' Each section, while complete in itself, should have relations (i.) to other sections of the

syllabus, (ii.) to other branches of the curriculum. (Sect. V, 3c). Its connection with the scholar's other interests can be viewed lengthwise, one of a series of stages in progressive attainment; and crosswise, as an element in a complete set of pursuits which occupy the scholar contemporaneously, each assisting the other. The former is usually more carefully anticipated in teaching-plans, but the latter is equally important. Practical hindrances are encountered in transferring these theoretical connections to the scholar's field of experience.

(b) Every Section, if appreciated by the scholar, sets out with an expectation of realizing some purpose (Chap. 5 *d* above). This purpose is technically known as the scholar's Aim: and the Step by which his mind is drawn to realise this aim we call Introduction. Examples to shew the variety of modes in which this Step can be encountered.

(c) Every Section, if achieved by the scholar, results in the desire for further activity in which the acquisition can be put to use. This is a concluding Step, known as Application. It need not always be undertaken formally at the close of a Section.

(d) Both of these Steps associate the pursuit proposed in this Section with familiar experiences lying outside of it. The advance to what is novel is made in the intervening Steps, where the variety of types are witnessed as described in Chaps. 4 to 8 above.

#### *Chapter 11. The teacher as a student of Method.*

(a) Sections of teaching worked out by experienced teachers should first be studied, and when possible followed in the classroom. The student should write a sketch of the proceedings, endeavouring to interpret what he has observed in technical language, and then compare his interpretation with that of the teacher. This sketch should begin with the syllabus, and conclude with references to other parts of the syllabus where the Section may find its Application.

(b) Examples in text-books of Method can be examined for the sake of comparison. Lesson Notes described in full detail, and based on actual practice with scholars are the best for this purpose.

(c) On commencing his own work in charge of a class, he can at first only vaguely anticipate the course of events. But he should write Lesson Notes beforehand, as exercise in acquiring this power.

[Such notes are similar to the preparation made by a public speaker, except that in lessons (as contrasted with speeches) the teacher holds himself in the background, merely directing the activities of the scholars. Formerly this was not the case: school method is following a process of change similar to the change in classroom furniture, which is still too often modelled on the requirements of a church or lecture room.]

(d) Lesson Notes not a record solely of discussion or discourse. The activities of the classroom should include much more than this. Most teachers talk far too much.

[Use of the Time Test with the seconds' hand of a watch.]

(e) The Lesson Notes, however carefully prepared, should be discarded with freedom by the beginner. It is only after much experience that a teacher can prepare with precision beforehand (Comp. 1 *c* above). With experience also brief notes (or none at all!) may suffice as preparation. But most beginners fail to learn their art unless they practise industrious preparation.

(f) Detailed recommendations for students working in the Manchester Department of Education will be found in the Appendix.

REFERENCES.—Illustrative lessons can be found in *P.C.T.*, Chaps. 12 to 15 and Appendix, p. 428. Larrie's *Encyclopedia*, vol. i., pp. 79–82 (substitute this lesson in Geometry for pp. 296–303 in *P.C.T.*). Bagley: *Educative Process*, Chaps. 12–24. Valuable stenographed reports of lessons in various volumes of the Teachers' College Series. For other examples consult references to text books in Special Method.

*Chapter 12.* Important reform in Method arising (i.) from a better understanding of social psychology, (ii.) from a better appreciation of mental activity.

(a) Teaching by means of dialogue (question and answer) is too often a uniform procedure rather than an occasional device. When once a class has realized its aim by an Introduction, the members can attack the problem by a variety of routes.

(b) In all branches except singing, and at all school ages, a class can be broken up into groups for independent work, and later on resume collective discussion and interchange of experience.

(c) This plan has been applied successfully to Arithmetic, to Science, to all the Arts; it needs to find its application also in the Humanities, if they are to reach the same level of excellence in Method.

(d) The Home Lesson and other preparation periods should be included in the Notes of Lessons.

(e) At first the teacher finds it hard to let the class get 'out of hand': but a deceptive appearance of discipline only disguises mental torpidity.

(f) The teacher planning a Section should inquire: how would my scholars achieve this aim if they were only a small company of three or four left to themselves except for my occasional direction? He can then modify this ideal situation so far as the hindrances of large numbers, etc., will permit his scholars to be 'free.'

## SECTION VII.

### THE CORPORATE LIFE OF SCHOOL.

*Chapter 1.* The meaning of institutional life.

(a) The secondary (general) function discharged by every social organism. The social virtues (Mackenzie: *Ethics*, Book III).

(b) Any society (trades union, sports, club, etc.) regarded as a 'personality.'

(c) The desire to conserve old ties in perpetual conflict

with necessity for readjustment: reconciled by the sentiment of unity:—a union of the 'real' with the 'ideal.'

(d) Compromise between external uniformity and inner freedom.

(e) Forms of association vary according to the stage of development of the members, design of the institution, etc.

REFERENCES.—In addition to wider reading, in sociology, ethics or jurisprudence, Tompkin's *Philosophy of School Management*, pp. 1-21 (not always consistent, but a book of high distinction).

### Chapter 2. The scholar in his society.

(a) The child displays strong social instincts: to him school is a community.

(b) The other communities: Family, Church, Vocation, State (see Sects I and III) also claim his adhesion, but his life as a scholar is separate from these.

(c) The status of the child, over against the adult.

(d) Hence, contrary to earlier opinion, the scholar learns better and learns more, not only out of school but in 'lessons,' by association with his fellows: numbers a help rather than a hindrance: modern life also compels the individual to live in the crowd with his fellows.

(e) The function of the teacher: is he a member of the community—or its 'master'?

(f) (Also Sect. II, 5.) Advantages and disadvantages of private tuition.

(g) A distinctive feature of English Secondary Education, as compared with foreign countries.

REFERENCES.—Stanley: *Life of Arnold*, Chaps. 3 and 4. *Introduction to The Code for Elementary Schools*. Sadler's *Moral Instruction and Training Report*, vol. i., Chaps. 12 and 13; vol. ii., Chaps. 15 and 16. Welton and Blandford: *Moral Training*, Chap. 6; and Tompkins as above. For the Herbartian distinction between Teaching and Training see Rein, as above, or *P.C.T.*, Chap. 1; also Findlay, *The Personal Influence of the Teacher*, pamphlet in Christie Library.

### Chapter 3. Types of School—to be differentiated by stages of development. (Compare Sect. V, 2.)

(a) Infants, children, pupils, students each offer a separate type and should be organized apart from each other.

- (b) Subordinate types also demand attention, for every social group (Comp. Sect. I, 2, c) seeks to maintain its cohesion through an appropriate school system—problems (not treated in this Course) of co-education, of ‘class’ schools, of ‘special’ schools, etc., need to be surveyed in the light of these principles.

• REFERENCE.—*P.C.T.*, Chap. 4, etc.

*Chapter 4. Distinctive aims of a school society.*

(a) The school is a conservative institution: by it the adult society hands on tradition and trains the young in habits of submission to the social order.

(b) But the young are the pioneers of a new order: rebellion a necessary feature in the progress of the species. (Sect. II, 3, b,c.) A sound organization recognizes the value of both these instincts.

- (c) Their balance varies in the four successive types.

(d) The aim to be achieved, both in the specific work (Learning and Teaching) and in ‘out-of-school’ experience.

(e) Externally, the scholar should learn from his school, what his relations are to the other social groups which claim his allegiance.

*Chapter 5. General conditions of efficiency.*

• (a) The members of any society must be together for an adequate time:—day by day (school attendance, cf. Sect. VI, 9 a) and for successive years (neglect of this proviso in many secondary schools): the problem of compulsion: differences of opinion.

(b) No society should make excessive claims on its members, to the exclusion of other claims: the boarding school often an offender here.

(c) Per contra, Family, Vocation, Church, State should permit ample freedom for the play of social instincts within the school.

(d) These three conditions are concerned with the strength of the corporate bond: a distinctive organization



tends to grow up in each school society: the 'real' seeks its 'ideal' in many varying forms.

(e) The young scholar is lost in a crowd: hence the large school needs sub-division (Chap. 7 below).

(f) Rules of government are necessary, but should be in consonance with the status of a scholar: the machinery should answer to the ideal ends proposed: a school not a factory or an office.

(g) Steadiness in routine in conflict with the need for elasticity and readiness to change the routine.

These conditions indicate topics for the subsequent chapters.

REFERENCES.—For attendance and registration consult the Code, and other regulations of the Board of Education (Secondary, Evening Schools, etc.). For Compulsion, see Sadler's *Continuation Schools* (Marc. Univ. Press, 1907); read Tompkins, pp. 163-171, for a fine illustration of the principles at issue in this chapter.

### *Chapter 6. The common life of the whole society.*

(a) The daily assembly. Suitable 'exercises' for this meeting. Common worship: singing: recitation: public interests: relations to the larger world without (Sect. III, 2 b). Use and abuse of the teacher's influence at this gathering. Share to be taken by all the members, according to their rank and capacity.

(b) Special social habits fostered by the assembly.

(c) Distinctions in rank: the monitors, the principal teacher: prefects and fags in 'Public Schools.'

(d) The school magazine; public functions; reception of parents.

REFERENCES.—Tompkins, 105-8; Stanley's *Arnold*, Chap. III.

### *Chapter 7. Distribution of the society into smaller groups.*

(i.) For learning, *i.e.*, for the assigned 'pursuits' (see Sect. V).

(ii.) For out-of-school life.

(i.) Is not always necessary, and indeed each scholar does go at his own pace. Experiments made to secure

individual teaching (see Bagley, p. 214; Tompkins, p. 111). Method, used at St. Paul's School (*P.C.T.*, p. 120). Contrast between the German and English ideal, as seen in comparing the 'Set' system with the annual promotion in all German schools. Should a teacher be with the same group of scholars throughout the week?

*Chapter 8. Classes and Grades.*

(a) Clear distinction needed between a class of scholars and a grade of work: The names (Standard, Form, etc.) only roughly indicate a grade, which will vary from year to year.

(b) The size of the class unit: every scholar enabled to take his part: devices to overcome the teacher's difficulty with large classes.

(c) Normal size for a school to secure complete grading: Thring's limit of 300; rural and other small schools find compensations for lack of numbers.

(d) Breaking up and re-making the class:—an annual event. The teacher's verdict *v.* the external examination (see below Chap. 15).

REFERENCE.—Tompkins, pp. 109–133.

*Chapter 9. Unity and Harmony in class management.*

(a) The central principle: ebb and flow of attention towards a common purpose. All difficulties in discipline to be solved by reference to this principle; attention to be directed not towards the teacher ('attend to me!'), but to the 'problem' (see Sect. VI, 10 *b*), which concerns all.

(b) Breaking up the class for practical work: advantage of two or more working in partnership.

(c) Questioning:—the rules deduced readily from the above principle.

(d) Class routine: only justified if it helps the purpose: the two opposite dangers.

(e) Interruptions to unity: external, from visitors: internal, from the teacher himself: from scholars (restoration of order, Chap. 13).

REFERENCES.—*P.C.T.*, Chap. 16; Tompkins, pp. 133–157.

*Chapter 10.* Unison between class and class throughout a school.

(a) The machinery to secure this is the staff meeting (see Chap. 16).

(b) The conflict is between the teacher's claim to freedom and the scholar's need for continuity.

(c) In externals uniformity; in personal influence, variety.

(d) Illustrations from the practice of various schools.

REFERENCE.—*P.C.T.*, p. 416 etc.

*Chapter 11.* Independent work by scholars.

(a) Collective teaching unites all, but effective learning produces separate, individual activity of each member.

(b) Such effort is the supreme test of success. Many 'hobbies' are the sequel to interests commenced in a classroom.

(c) But such efforts are also prescribed as 'compulsory.' They may be undertaken during school hours, as in U.S.A. (busy-work) or as in English boarding schools.

(d) The Home Lesson, one particular form: important in its relation to parents. At what age to begin? The quality as well as the quantity needs careful limitation. The 'exaction' of home work. Shall the teacher 'correct' the scholar's errors? Any other correction than that by the scholar is futile.

(e) The use and abuse of Holiday Lessons.

(f) Other 'voluntary' exercises.

REFERENCE.—*P.C.T.*, Chap. 16.

*Chapter 12.* Distribution of the society into groups for 'out of school' purposes.

(a) Free corporate life a paramount factor in every society.

(b) Scholars organize themselves, if their elders neglect to share the corporate life, *e.g.*, games clubs in many elementary schools: fraternities in American High Schools.

(c) Distinction between class grouping, and out-of-school grouping.

(d) The occupations which naturally engage scholars when associated out of school: -- survival values of earlier instincts, especially of play and competitive games.

(e) Hence more important in secondary schools than in the other types.

(f) The House-system in English Secondary Schools: development since 1870 at Clifton College: its recent adoption in Lancashire schools.

(g) Effect on the teacher's practice of adopting this attitude towards his scholars: the teacher as *pastor agnorum*.

REFERENCES.--Cottorill: *Suggested Reforms in Public Schools*. Findlay: "The Corporate Life of School," *School Review*, Dec., 1907, etc. (copy in Christie Library). Other books dealing with "Public School" education are in the Christie Library.

### Chapter 13. The restoration of order.

(a) Psychologically, a problem of attention, *i.e.*, to secure secondary voluntary attention.

(b) Tendencies which assist a return to attention: the instinct of submission, reinforced by acquired habits, by the influence of routine, by social suggestion: in older scholars, by respect for social regulation, sometimes by personal regard (not a force to be relied upon!)

(c) Contra-tendencies--in abnormal situations--spring from independence aided by moods of contrariance; which may spread by social suggestion: and may even be stimulated by personal antipathy.

(d) These tendencies not in themselves evil: often a sign of character. Naughty children not necessarily vicious. But where they disturb the social order, they must be checked, and this is recognized by the scholars, elder and younger alike.

(e) Hence the need for rewards or punishments, technically called incentives. Note that the incentive must operate in the *scholar's* mind. Incentives operate at

all stages of development, even to old age, but the quality should advance.

(f) The forms vary according to the stage of development.

(g) With low grade incentives apply the minimum dose (both in drugs and in mental stimulants).

(h) Children expect rewards and punishments.

REFERENCES.—Tompkins, p. 157–183. Bagley, *Class Management*, On (d), (g) and (h) see Earl Barnes, *Studies in Education*, vol. i., "Children's Attitude towards Punishment" (very valuable).

#### Chapter 14. Rewards and Punishments.

(a) The two poles, negative and positive: pleasure and pain: which is preferable?

(b) With younger scholars, the incentive must not be remote: with all, it should be real: the difficulty in practice is serious, for individual temperament needs diagnosis before the stimulant is prescribed.

(c) Classification of incentives, positive and negative in parallel groups (i.) influence of the teacher (or the society) on the subject by speech or gesture, (ii.) by exhibition of achievement, (iii.) by positive interference with the subject: physical stimulus (usually negative), detention or liberty: scholarships and their opposite, (iv.) by symbolic marks of approval or disapproval: honour or disgrace, (v.) social distinction or the opposite. Many incentives share characteristics of all the groups. All are liable to abuse, especially the first.

(d) Classification of offences: each stage of development has its typical mode of disorder: and the selection of incentives will follow suit.

(e) The teacher's part: —merely an agent, an actor on a stage: being human, his feelings will be manifest, but they are not a matter of importance. Self-control is the one indispensable virtue in dealing with inferiors.

(f) Types of offence for which punishment is to be preferred: —Comparison with the practice of the State.

(g) Any incentive out of place when the mind is intensely absorbed: emotional stimulus should only be

aroused in the topic of study; the suggestion of incentive breaks the thread. This rule does not apply to mere routine occupations.

REFERENCE.—Chaps. 13 and 14 are a summary of a lecture already in print (*Educ Times*, March, 1909, copies in Christie Library).

*Chapter 15.* Entrance into the School Society: and departure from it.

(a) The first day of school: the last day: 'Commencement' in the U.S. Colleges.

(b) The Entrance Certificate (for all schools beyond the Primary) and the Leaving Certificate (Comp. Sect. III, 6), both should survey the scholar as a human being, and not merely in intellectual equipment.

(c) Importance of current proposals for School Leaving Certificates: these should be extended to the Primary Schools. The specialization of modern life requires such regulation not only for transfer from one school society to another, but for entrance to every type of vocation (*P.C.T.*, 91, 109).

(d) Old Scholars' Clubs.

*Chapter 16.* The school staff acting in concert (refer back to Sect. I, 3 d above).

(a) Contrast between the teacher's authority over his inferiors and the need for abnegation when co-operating with his equals. A question of temperament or disposition strengthened by habit.

(b) The traditional attitude symbolized by professional titles opposed to the needs of the society as a progressive community.

(c) Specialism in contrast to all-round attainment. The teacher learns for and with his scholars.

*Chapter 17.* Relations of the school society to other communities with kindred interests (Sect. III, 2.)

(a) School and Home: Parents' Evenings (*Demonstration School Record*, No. I, 1906, Chap. VI).

(b) Old scholars' clubs (Chap. 15).

(c) Relations with public authorities, especially the civic authority (Cultivation of Local Patriotism: *Educ. Times*, Nov., 1899).

(d) School Cadet Corps: The Boy Scout movement: School Camps.

REFERENCE.—Dutton: *Social Phases of Education in the School and the Home*; Chap. on "The Brookline Educ. Society and its Work."

J. J. F.

# LANDMARKS IN THE HISTORY OF EDUCATION WITH SPECIAL REFERENCE TO THE EDUCATION OF YOUNG CHILDREN.

## COURSE VII.

### TWO-YEAR STUDENTS (SENIOR).

*Introductory Lecture*, indicating the scope of the Course.

#### *Renaissance or Revival of Learning.*

1. Geographical discoveries: Columbus and the West Indies, 1492; Magellan and the Pacific, 1522.

2. Protestant Reformation: Martin Luther nailed his 95 Propositions to the Church door of Wittenberg, 1517.

3. Invention of Printing by movable type, c. 1440. Between 1470 and 1501 in Venice 150 printing presses,  $3\frac{1}{2}$  million volumes printed.

4. Enthusiasm for Latin and Greek literature (the Humanities).

Visit to Rylands Library.

The Renaissance school-master: 1. Vittorino, the Christian Humanist; 2. Sturmius, the successful formalist.

1. *Vittorino da Feltre*, 1378—1446, called the first modern schoolmaster.—School at Mantua begun in 1423, under the Lordship of Gonzaga. Vittorino's object to form Christian citizens, chief subjects of instruction Latin and Greek. He claimed freedom for the teacher. Daily exercise in the open air, and simple living, he made compulsory for all his pupils.



[Reading: Woodward's "Vittorino da Feltre," especially pp. 29-45, 62-67, 88-92. Refer to Symonds' "Renaissance in Italy," vol. ii.]

2. *Sturmius*, 1507—1589, successful German school-master. Rector of the Gymnasium, Strassburg, for 40 years.—1,000 boys, ten years devoted almost exclusively to the gaining of a pure Latin style.—Object to write and speak Latin; mother-tongue ignored. Royal patronage, European reputation: the triumph of words.

Dean Colet founded S. Paul's School (London), 1512.

*The Jesuit Schools; and in contrast, the Little Schools of Port Royal.*

The founder of the Jesuit Society, Ignatius Loyola, a Spanish nobleman. Society officially recognised 1540; chief object "to instruct boys and ignorant persons in the Christian religion." A carefully organised system of education which has been dominant in Europe for three centuries. Rule of studies drawn up in 1599 remained unaltered until 1832 (*Ratio Studiorum*). Latin to be read, written, spoken. Mother-tongue practically excluded. Teachers carefully trained, school-hours short (5). Supervision of the pupils excessive; emulation the chief spur to work.

[Reading: Quick's "Educational Reformers," pp. 33 to 62; "Loyola," by Hughes, Great Educators Series.]

*The Little Schools of Port Royal*, 1646—1661.

The work of the Solitaries, a small group of distinguished men inspired by the Abbé Saint-Cyran. The Jansenists dared to oppose the Jesuits, so *les petites écoles* were broken up by order of Louis XIV. in 1661. The Arnould family; the great Pascal; Lancelot and Nicole. Teachers to be sympathetic, and to go slowly; their motto, "plus prier, que crier." They wrote numerous text-books, simplified grammar, and wrote the rules in mother-tongue. They anticipated the modern plan of beginners reading

prepared editions of great authors. "Few rules, much practice."

[Reading: Beard's "Port-Royal," especially vol. ii, chap. II; Quick's "Educational Reformers," chap. XI.]

*Comenius*, 1592—1671.

Moravian pastor, lost everything in 1621, through the breaking out of the Thirty Years' War. Devoted himself to education, because in the schools he saw a hope of social regeneration. Education for all, improved Latin teaching, importance of mother-tongue. His great work *Didactica Magna*, published 1657, and in the same year his *School of Infancy*. In 1658 published the first illustrated lesson book for children, *Orbis Pictus*. His aim, that the understanding and the tongue should always advance on parallel lines. In 1641 he visited Master Samuel Hartlib, and planned the carrying out of "the scheme of the great Verulam of opening a universal college."

[Reading: "Great Didactic," translated by Keatinge; or "Great Didactic," Laurie; "School of Infancy"; Quick, Chap. X; Milton's Tractate, 1644.]

*John Locke*, 1632—1704, and care of the "clay-cottage."

Philosopher, medical man, diplomatist. "Thoughts concerning Education," letters written to a friend (Mr. Clarke of Chipley) who asked for advice in the education of his son. Health necessary to our business and happiness. Children not taught by rules but by practice, leading to the formation of habits.

[Reading: Locke on Education, edited by Quick (Camb. Univ. Press), especially pp. 1-39; or "Thoughts concerning Education," edited by Dr. Fowler; "Conduct of Understanding," edited by Dr. Fowler.]

*Rousseau and his Emilius*, 1762.

A forerunner of the French Revolution. A reader of Montaigne (d. 1592) and Locke. Avoid the artificial, return to the natural. The most perilous interval for moral and intellectual habits is from birth to twelve years of

age. Rousseau distrusted words, disbelieved in the spoken injunction; he wished Emile ultimately to gain firm habits, to respect reason, and to keep an open mind.

"It was Rousseau who first in our modern time sounded a new trumpet note for one more of the great battles of humanity."—J. M.

[Reading: Morley's "Rousseau", (especially vol. ii, chap. IV); "Emile," any French edition, or translated by Payne or Steig.]

### 1750—1900. TREATMENT OF THE CHILD: (1) SOCIAL, (2) BOOKS, (3) ART.

1. Social conditions, changed by the *Industrial Revolution*. (a) Manufacture of cotton rather than wool; (b) Smelting iron with coal instead of wood. (c) Agriculture: "Turnip" Townshend introduced rotation of crops. (d) Inventions: 1733, Kay's flying shuttle; 1764, Hargreaves' spinning jenny; 1790, Cartwright's power loom; 1785, James Watts' improved steam-engine replaced water-wheels for driving power; (e) Pack-horse and coach give way to canal and railway: 1761, Bridgwater Canal (Brindley) opened to bring coal from Worsley; first railway for passengers opened between Liverpool and Manchester, 1830; Adam Smith taught in his "Wealth of Nations" (1776) that "trade should be left free."

These changes told heavily upon the children, who worked for excessive hours under insanitary conditions. First Factory Act (Sir Robert Peel), *The Health and Morals of Apprentices Act*, 1802, limited work to 12 hours, and enacted that all apprentices must be instructed in the three Rs, and attend church once a month. Factory Act of 1833 forbade any child under 9 years to work in a factory, and ordered every child between 9 and 13 to attend school for 2 hours on every week-day. Not until *Education Act*, 1870, was school provision made for all.

[Reading: "Landmarks in English Industrial History" by Warner; Traill's "Social England," vol. v, pp.

625, etc.; Green's "History" (illustrated), pp. 1727, etc.; "Childhood in Literature and Art," by Scudder; Mrs. Browning's "Cry of the Children," and the second chapter of the "Clayhanger," by A. Bennett.]

Visit to Madox Brown's mural paintings, Town Hall.

## 2. Books for, or about, Children.

Before this period books read to children: "Pilgrim's Progress" (Bunyan, *d.* 1688), "Robinson Crusoe" (Defoe, *d.* 1731), and "Gulliver's Travels" (Swift, *d.* 1745).

(a) Description of family life, also opinion of an usher's life: "Vicar of Wakefield," Oliver Goldsmith, 1728—1774; "Life of Mrs. Sherwood."

(b) School Books: "Little Female Academy" (1758); Mavor's "Spelling" (1801); Mangnall's "Miscellaneous Questions," (M. died 1820).

(c) Books with didactic purpose: "C'est enfin la morale mise en action"; Mme de Genlis (1746—1831) one of 90 volumes "Veillées du Chateau"; and Mrs. Barbauld (*d.* 1825) "Evenings at Home"; Dr. Watts (*d.* 1748) Poems; Mrs. Trimmer (*d.* 1810) "Fabulous Histories"; Thos. Day (1748—1789) "Sandford and Merton"; Maria Edgeworth (1767—1849) Tales, and with her Father "Practical Education"; Mrs. Sherwood (1775—1851) "The Fairchild Family."

## 3. Art: children in pictures.

### A. Before 1700.

(a) Religious pictures, especially of the Madonna and Child: *Filippino Lippi* (*d.* 1504), *Botticelli* (*d.* 1510), *Raphael* (*d.* 1520). Children: *Benozzo Gozzoli* (*d.* 1497).

(b) Dutch interiors and portraits of children: *de Hoogh* (*d.* 1678), *Mabuse* (*d.* 1532).

### B. After 1700.

(a) Family portraiture (Patricians). Sir Joshua Reynolds helped to found Royal Academy in 1768. Ruskin calls his work "magnificent sketching." His rival *Gainsborough*, (*d.* 1788), painted hard for 43 years.

Ruskin wrote of him in "Modern Painters": "As a draughtsman he is occasionally at fault, as a colourist never."

(b) Household interiors (Plebeians). *Hogarth* at his zenith in 1745.

(c) Coloured prints of children by *Bartolozzi* (1727—1815), many of them with charm, some affected and sentimental. *Thomas Stothard* (d. 1810), a few pictures of country life, but chiefly illustrations of books, graceful figures, imitation of the Classic.

(d) *William Blake* (d. 1827), poet and prophet, illustrator and engraver. *Songs of Innocence*, 1789. *Songs of Experience*, 1794. In contrast to the mystic Blake, the naturalist, *Thomas Bewick* (1753—1828) who led the revival of wood-engraving. Healthy in soul and body; he said he would rather tend the sheep on a moor than be Premier of England.

(e) Best modern illustrations of or for children to contrast with Bartolozzi: *Helen Allingham*, *Randolph Caldecott*, *Walter Crane*.

Visit to Water Colour Room in Whitworth Gallery.

CHIEF LANDMARKS IN THE CONNECTION BETWEEN THE STATE AND THE SCHOOL. [References to "Educational Systems of Great Britain and Ireland" by Graham Balfour (2nd edition).]

1802. *Health and Morals of Apprentices Act*. [Instruction in three Rs mentioned.]

1833. *A Vote in Supply given to Treasury*, for the erection of school-houses in Great Britain. Bell and the National Society; Lancaster and the British and Foreign School Society.

1839. *Order in Council* appointing a Special Committee of the Privy Council, to administer the grant. Quote Lord John Russell's letter, p. 5.

1851. *The Great Exhibition*, and in consequence the beginnings of the Science and Art Department in connection with the Board of Trade. 1852, Department of Practical Art, 1853, Science division added.

• 1856. *Education Department* founded, under chairmanship of the Lord President of the Privy Council; Vice-President of the Committee of P.C. created to be representative in House of Commons.

1861. *Royal Commission (Newcastle)* reported that only one-seventeenth of the children of the poor were receiving satisfactory education.

• Rt. Hon. Robert Lowe published first Code: since published yearly. Payment by results instituted; given up in 1895.

1870. *Elementary Education Act*: school-places provided for all. School Boards, Rate Aid, beginning of Compulsory Attendance, Cowper-Temple Clause.

1888. *County Councils* instituted, by Local Government Act; followed by Technical Instruction Act, 1889.

• 1899. *Board of Education Act*, united the Education Department, the Science and Art Department, and the educational functions of the Charity Commission.

1902. *Education Act*, abolished School Boards and School Attendance Committees, and made the Councils of county and county boroughs the local authority for elementary and higher education; but the councils of non-county boroughs with a population of over 10,000 (1901) and of urban districts of over 20,000 became the local authorities for elementary education only. Education Committee appointed by Council but the latter must retain financial control. Two classes of elementary schools: (a) Council or provided schools; (b) Voluntary or non-provided schools, with a body of managers.

*Pestalozzi, b. Zürich, 1746, d. 1827.* In youth his chief interest was in politics, this led to experiments in agriculture, Neuhof, 1769—1776, followed by a succession of experiments in education:—

1799, Stanz (when 52 years of age), the saving of destitute orphans.

1800-4, Burgdorf, near Berne, faithful friend Krusi.

1805—1825, Yverdon near Neuchâtel, faithless friend Schmidt.

Writings: (a) "Leonard and Gertrude," 1781, first of four volumes; (b) "How Gertrude teaches her children," 1801.

His main characteristic was absolute devotion to the welfare of the children, seeing in them the best hope of social reform. "The best service man can render to man is to teach him to help himself."

[Reading: de Guimp's "Life of Pestalozzi," translated by Russell: description of Father Pestalozzi, p. 206; a Geography lesson at Yverdon, p. 208; "The Educational Ideas of Pestalozzi," by Prof. Green; "The Student's Pestalozzi," by John Russell.]

*Froebel*, b. in Thuringia, 1782, d. 1852.

1. Place him in history: in 1782 Pestalozzi was 36 years of age, Herbart 6 years old. Rousseau had been dead 4 years. Wordsworth was 12 years old. Sir Walter Scott 13 years of age. American Independence had been declared 6 years before, and the storm cloud of the French Revolution was ominously gathering to break 7 years later.

2. Facts of Froebel's life and their connection with his work for education:—

(a) Son of a Protestant pastor in Thuringia; later childhood unhappy, led to introspection: Deep religious convictions.

(b) Apprenticed to a forester when 15. Keen observer of nature, especially plants. The idea of the unity of Nature.

(c) Tried various occupations: farming, land-surveying, secretary, architect. Fails to find his life-work in any of these.

(d) While studying architecture at Frankfurt joined staff of a model school, the director of which had caught some of Pestalozzi's enthusiasm. Finds his work in teaching.

## EDUCATION OF YOUNG CHILDREN .16r

•(e) When 25 became tutor of 3 boys, took them to Yverdon, realized need of more knowledge, especially of Nat. Science. Gain [d] inspiration from Pestalo [zi]—"learn by doing."

(f) So continued his studies at Göttingen and Berlin. Study of natural objects fundamental.

(g) 1813, went through the campaign of resistance to Napoleon's invasion of Prussia. Made friends, Langenthal and Middendorf. New experiences invaluable to a teacher. Devoted friends sacrificed all to carry out his ideas.

(h) 1816, opened a school with nephews and niece as nucleus, joined by Langenthal at Keilhau. Gains experience, writes pamphlets and in 1826 "Education of Man."

•(i) 1837, First Kindergarten opened at Blankenburg. Education reform begins with young children.

(k) 1850, Training College founded at Marienthal by Graff Duke of Weimar, through the intervention of Madame von Marenholtz-Bülow. Teachers of the young must be trained.

[Reading: "Froebel," by Bowen (Great Educators Series); "Education of Man," translation by Hailman, or Josephine Jarvis; "The Student's Froebel," Part I. Extracts made by W. H. Herford (1911 edition); "Autobiography," translated by Madame Michaelis and K. Moore; "Educational Ideas of Froebel," by Jessie White, D.Sc.; Drummond's "The Child," last chapter.]

*Charles Dickens*, 1812—1870, as champion of the mis-used child.

1855, published in "Household Words" an article on Infant Gardens.



A few examples contrasted:—

(a) School-life: Salem House ("David Copperfield"), Grinder's School and Dr. Blimber's Establishment ("Dombey and Son"), contrasted with the Stepney Union Schools ("Uncommercial Traveller").

(b) School-master: Mr. Squeers ("Dombey and Son") contrasted with Marton ("Old Curiosity Shop").

(c) School-child: Mrs. Pipchin the "child-queller" contrasted with Peggotty ("David Copperfield").

[Reading: Works of Dickens; Forster's "Life of Dickens"; "Dickens as an Educator," Hughes, International Education Series.]

*William Wordsworth*, 1770—1850, represents a new attitude to children, "the child is father of the man." He wrote: "I wish to be considered as a teacher or as nothing."

—Extracts from the Prelude, and the last book of the Excursion; "Lines written above Tintern Abbey," and "Anecdote for Fathers."

[Read in addition F. W. H. Myer's Wordsworth in "Men of Letters," and Prof. Raleigh's "Wordsworth."]

### *The Great Public Schools for Boys.*

*William Cowper* (1731—1800) was at Westminster School from 10 to 18 after having been nearly bullied to death at a school before he went there. Read his "Tirocinium," or a review of schools.

*Charles Lamb* (1775—1834) from 7 to 14 at Christ's Hospital, where he made friends with Coleridge, two years his senior.

[Read: "Recollections of Christ's Hospital," published with his Miscellaneous Essays, "a magnificent eulogy on my old school," and "Christ's Hospital, five and thirty years ago," one of the Essays of Elia, giving the painful side.]

• *Dr. Arnold* of Rugby (1795—1842). His school, Winchester, then Oxford (Corp. Ch.), where he came under the influence of the writings of Coleridge and Wordsworth. Fellow of Oriel 1815, ordained 1814. Married Mary Penrose, 1820, and lived at Laleham on the Thames. Rector, taking private pupils 1819—1828. Rugby 1828 to 1842. The aim of education two-fold, intellectual and moral excellence; this belief he made it his life's object to realise. His old boys testify: Dean Stanley in his life (chaps. III and IV), Thomas Hughes in "Tom Brown's School Days," and Matthew Arnold, his son, in "Rugby Chapel."

• [Read, also, "Arnold of Rugby," edited by J. J. Findlay, and Gray's "Ode on a distant prospect of Eton College."]

• *The Higher Education of Girls and Women.*

1848. Queen's College, London, opened. Lecturers, F. D. Maurice and Kingsley; among pupils F. M. Buss and D. Beale.

The next year Bedford College.

1870. The first High School, the N. London Collegiate School founded under Miss Buss, after her 20 years at Camden Town School.

1864. Schools Inquiry Commission appointed without reference to girls. Memorial presented (Miss Emily Davies); report on Lancashire by Mr. James Bryce.

• 1867. North of England Council for promoting the Higher Education of Women; Miss Clough and Mrs. Josephine Butler, Mr. Bryce and Mr. Fitch, were the chief movers. This developed into the University Extension movement, which Mr. M. E. Sadler made famous.

1869, 1873. Girton College, Cambridge after Hitchin.

1870-71. Courses of Lectures at Cambridge, with residence arranged by Mr. Henry Sidgwick and Miss Clough.

1880. Newnham College, Miss A. J. Clough first Principal.

1871, 1872, 1873. The G.P.D.S. Co.'s schools began to be founded through the influence and work of Mrs. Grey, Miss Shirreff and the Lady Stanley of Alderley.

1878. Oxford Association for the Education of Women founded, and the following year Lady Margaret Hall, and Somerville opened. First Principals: Miss Wordsworth and Miss Shaw-Lefevre.

1880. Women admitted to all degrees of the London University and Victoria University.

1881. Resident women admitted to the Tripos examinations of Cambridge University.

1894. Royal Commission on Secondary Education, for the first time women members included (3).

1902. Education Act (Section 17) requires that the local education authority shall include women as well as men on the Education Committee.

1903—1910. County and County-borough authorities have largely extended the supply of public secondary schools for girls.

### *Modern Tendencies.*

Dewey and his followers compared and contrasted with the Herbart-Rein school.

[Read account of Egeria's School in Utopia from "What is, and what might be," by E. Holmes; "Introduction to Herbart's Science of Education," by H. and E. Felkin; "The School and the Child," by Dewey, Edited by J. J. Findlay.]

C. H.

## THE MENTAL AND PHYSICAL LIFE OF SCHOOL CHILDREN.\*

### INTRODUCTORY NOTE.

No attempt has been made to make these reference lists exhaustive. The student is recommended to buy James, *Text Book in Psychology*; Mark, *The Unfolding of Personality*; McDougall, *Physiological Psychology*; and Drummond, *The Child*. Of the other works mentioned those of Thorndike's are probably the most valuable and suggestive. The references in many cases are alternative not supplementary and, as a rule, the more important the reference the earlier it is placed in the list. Most of the books are in the Christie Library and will be placed on the reserved list at the beginning of the session. A further list of readings dealing with special aspects or problems of educational psychology is given in Appendix II. Students in Course V. are advised to read as many of these as possible. Students in Course I. are expected to hand in a sessional essay during the Lent Term, while students in Course V. are expected to write two terminal essays—the first in the Michaelmas and the second in the Easter Term.\* A list of topics suitable for essays is given in Appendix I. The practical work connected with the course is undertaken mainly at the Fielden Schools. Visits are also paid to special schools, such as those for the education of the blind, deaf and mentally deficient.

The following are some of the theoretical considerations or hypotheses which underlie this syllabus.\*

(1) That, so far as is known, all mental action has a physical basis and consequently emphasis is laid quite

\*Selected portions of this Syllabus will be studied in Courses I and V.

early in the course on the elements of Physiological Psychology and on the structure of the nervous system.

(2) That the study of mental development in the child is more valuable to a teacher than a minute analysis of the mental states of the adult. Hence great stress is laid upon Genetic Psychology and comparatively little upon the Psychology descriptive of mental life in the adult. In the development of the child change or growth is the one outstanding feature—an aspect emphasised throughout the syllabus.

(3) Mind tends to express itself in action; a study of the mind in action (Dynamic or Functional Psychology) is more important to teachers than the metaphysical aspects of the subject; a study of instincts, capacities, habits, association, reasoning, movements, suggestion and imitation, attention and interest is relatively more valuable than a study of lengthy descriptions of feeling attitudes, hedonic tones and conative attitudes, or even of perception and sensation as such.

(4) That, although great importance is attached to a study of normal children in a normal environment it is also recognised that much can be learnt from observation of abnormal children—the genius, defective, blind and deaf.

## I. THE PHYSICAL LIFE OF THE CHILD.

### 1. *Heredity and Environment.*

(a) Meaning of such terms as heredity, environment, evolution, variation, selection, acquired characters, racial and individual adaptation and so forth.

(b) The non-inheritance of acquired characters, hence education is for one generation only. Transmission by social heredity.

(c) Environment (with education as a part of environment) as supplemental to Heredity. The difficulties in the way of estimating the relative influences of heredity and environment.

(d) Environment as an originating and selecting agent.

(e) The inheritance of physical and mental traits: influence of remote and immediate ancestry: influence of environment.

REFERENCES.—Henderson, *Text Book in the Principles of Education*, Chaps. II and III. Thorndike, *Educational Psychology*, Chaps. IV, V and VII. Welton, *The Psychology of Education*, Chaps. II—VI. Mark, *Unfolding of Personality*, Introduction and Chap. I. Thorndike, *Notes on Child Study*, Chap. 18. Archdall Reid, *The Laws of Heredity*. Lester F. Ward, *Applied Sociology*, part on achievement. Galton, *Hereditary Genius*. Woods, *Mental and Moral Heredity in Royalty*. Thorndike, *Measurement of Twins*. Cattell, *A Statistical Study of Eminent Men*, *Popular Science Monthly*, Vol. 62, pp. 359—377.

## 2. The meaning of Infancy and its significance for Education.

(a) The most intelligent creatures have the longest infancy because so many adjustments have to be made after birth.

(b) Man has been naturally selected for intelligence, not for physical strength.

REFERENCES.—Fiske, *The Meaning of Infancy*. Butler, *Meaning of Education*, Chap. I. Kirkpatrick, *Fundamentals of Child Study*, Chap. I. Drummond, *The Child*, Chap. I. Chamberlain, *The Child*, Drummond, *Ascent of Man*, Chap. IV.

## 3. The Growth of the Child.

(a) What is meant by growth?

(b) Distinction between growth and development.

(c) Growth in height and weight.

(1) Tables of height and weight.

(2) Form of records.

(3) Differences between boys and girls.

(d) Statistical summaries of measurements.

(1) Variability: the "Distribution Curve," or "Surface of Frequency."

(2) Measures of Central Tendency: the average, median and mode with methods of calculating them.

(3) Measures of Variability: the average deviation, standard deviation, and the probable error.

- (4) Measures of relationships: the Pearson coefficient, the method of unlike signs, the median ratio.

REFERENCES.—Wood, *Health and Education*, Chap. I. Thorndike, *Notes on Child Study*, Chaps 3 and 4. Tyler, *Growth and Education*. Hall, *Adolescence*, Chaps. I—III. Drummond, *The Child*, Chap. V. Kirkpatrick, *Fundamentals of Child Study*, Chap. II. Sandiford, *Educational Measurements*, Jour. of Experimental Pedagogy, Vol. i. Thorndike, *Educational Psychology*, Chaps. II, VIII—X, and Appendix III. Thorndike, *Mental and Social Measurements*. Whipple, *Manual of Mental and Physical Tests*, Chap. IV.

#### 4. *Health Examinations or Medical Inspection.*

(a) Reasons for Health Examinations.

(b) Examinations, by the teacher, school nurse, and medical officer.

(c) Charts and Records of Medical Inspection.

(d) Tests for eyesight and hearing.

(e) Dental Examinations.

(f) Medical, dental, and school clinics.

REFERENCES: Wood, *Health and Education*. Board of Education, *Annual Reports for 1908 and 1909 of the Chief Medical Officer of the Board of Education*. Mackenzie, *The Medical Inspection of School Children*. Kelynack, *Medical Examination of Schools and Scholars*. Whelpton, *Physical Education*. Gulick and Ayres, *Medical Inspection of Schools*. Report of Interdepartmental Committee, 1905, *Medical Inspection and Feeding of Children attending Public Elementary Schools* [Cd. 2779].

#### 5. *Child Study Records.*

(a) The Records of the Fielden School.

REFERENCES.—Findlay, *Fielden Demonstration School Record*, No. I, Chap. I.

#### 6. *The Relationships between Mental and Physical Traits.*

(a) Stature, weight and intellect.

(b) Deformities, sickness and intellect.

(c) Bad nervous action and intellect.

(d) Motor skill and intellect.

REFERENCES.—Thorndike, *Educational Psychology* (1st Ed.), Chap. XV. Hall, *Adolescence*, Chap. III. Welton, *Educational Psychology*, Chap.

III. Warner, *Study of Children*. Bolton, *Relation of Motor Power to Intelligence*, Amer. Jour. of Psy., Vol. xiv, pp. 622—631. Whipple, *Manual of Mental and Physical Tests*.

## II. THE PHYSIOLOGICAL BASIS OF MENTAL LIFE (PHYSIOLOGICAL PSYCHOLOGY).

### 1. *The evolution of the nervous system.*

(a) Primitive types—the amœba, the paramœcium, the hydra and the medusa.

(b) Later and higher types—the frog and the rabbit.

(c) Differentiations in cell structure.

(d) Sensory, motor and interpolated cells.

(e) Development of the spinal cord and brain.

(f) Development of special sense organs such as the eye and ear.

(g) The medullation of nerve-fibres and its significance.

REFERENCES.—McDougall, *Physiological Psychology*. Sherrington, *The Integration of the Nervous System*. Loeb, *Comparative Physiology of the Brain*. Thorndike, *Elements of Psychology*, Chap. IX. Jennings, *Behaviour of the Lower Organisms*. Donaldson, *The Growth of the Brain*. Foster, *Text Book of Physiology*.

### 2. *The Constitution of the Nervous System.*

#### (a) Gross Structure.

(1) The central nervous system—the cerebrum, cerebellum, medulla oblongata, and the spinal cord.

(2) The nerves passing from the central nervous system to various parts of the body.

(3) The end-organs—eye, ear, etc.

(4) The sympathetic system.

#### (b) Finer Structure.

(1) The structure of the neurone or nerve cell.  
The cell body, axons, dendrons, collaterals, and synapses.

(2) Motor and sensory neurones.

REFERENCES.—McDougall, *Physiological Psychology*, Chaps. I—IV. Thorndike, *Elements of Psychology*, Chap. IX. James, *Text Book of Psychology*, Chaps. VIII and IX. James, *Principles of Psychology*,



Chaps. I. and III. Loeb, *Comparative Physiology of the Brain*. Sherrington, *The Integration of the Nervous System*. Any good text in Physiology.

### 3. *The Localisation of Brain Functions.*

- (a) The sensory area.
- (b) The motor area.
- (c) The visual area.
- (d) The auditory area.
- (e) The olfactory area.
- (f) The association areas.

REFERENCES.—Ferrier, *Functions of the Brain*. Donaldson, *The Growth of the Brain*. Loeb, *Comparative Physiology of the Brain*. Thorndike, *Elements of Psychology*, Chap. X. James, *Principles of Psychology*, Chap. II. James, *Text Book of Psychology*, Chap. VIII.

### 4. *The Action of the Nervous System.*

- (a) The functions of neurones.

- (1) Sensitivity.
- (2) Conductivity.
- (3) Modifiability.

(b) The arrangement of neurones. Sensory, motor, and associative neurones. The grouping and chaining together of neurones.

REFERENCES.—Thorndike, *Elements of Psychology*, Chap. IX. McDougall, *Physiological Psychology*, Chap. II. James, *Principles of Psychology*, Chaps. II and III.

### 5. *The Laws of Brain Action.*

- (a) The Law of Expression.
- (b) The Law of Least Resistance.
- (c) The Law of Inborn connections.
- (d) The Law of Acquired connections.

REFERENCES.—Thorndike, *Elements of Psychology*, Chap. X. James, *Principles of Psychology*, Chap. III. McDougall, *Psychology*, Chap. II. James, *Text Book of Psychology*, Chap. IX.

### 6. *The End Organs and Sensation.*

(a) The eye. Structure and function. Sensation of sight. Visual Perception. Defects of Vision. Theories of colour vision.

(b) The ear. Structure and function. Noises and musical sounds.

(c) End organs of the skin. Touch, heat and cold, and pain. Epicritic and protopathic sensibility.

(d) Sensations from mouth, nose and internal organs.

(e) Sensations. Nature of sensation. Attributes of sensations. Classifications of sensations. The Weber-Fechner Law. Sensori-motor arcs. Reaction times.

REFERENCES.—James, *Text Book of Psychology*, Chaps. II—VI and XX. McDougall, *Physiological Psychology*, Chap. IV. Drummond, *The Child*, Chap. VI. Thorndike, *Elements of Psychology*, Chap. II. Stout, *Groundwork of Psychology*, Chaps. IV. and V. Myers, *Introduction to Experimental Psychology*, Chaps. I and II. Titchener, *Primer of Psychology*, Chap. III. Thorndike, *Notes on Child Study*, Chap. 7.

### III. DYNAMIC OR FUNCTIONAL PSYCHOLOGY.

#### 1. *Instincts and Capacities.*

(a) Explanation of the terms.

(b) Attributes of instincts and capacities.

(c) Classification of instincts.

(d) The control of instincts and capacities.

(e) The instincts of walking, emulation or rivalry, general physical activity, general mental activity, fear, play, acquisitiveness, constructiveness, curiosity and sex.

(f) The capacity for language and its importance in education.

REFERENCES.—Thorndike, *Elements of Psychology*, Chap. XII. Thorndike, *Principles of Teaching*, Chap. III. Mark, *Unfolding of Personality*, Chaps. III, IV and V. James, *Principles of Psychology*, Chap. XXIV. James, *Text Book of Psychology*, Chap. XXV. Kirkpatrick, *Fundamentals of Child Study*, Chaps. III—XIII. Welton, *Educational Psychology*, Chap. IV. Thorndike, *Notes on Child Study*, Chap. 5. Thorndike, *Mental Life of Monkeys*. Thorndike, *Animal Intelligence*. Lloyd Morgan, *Animal Life and Intelligence*. Lloyd Morgan, *Habit and Instinct*. Gross, *The Play of Animals*. Gross, *The Play of Man*. Baldwin, *Mental Development in the Child and the Race*. Romanes, *Mental Evolution in Animals and Man*. Preyer, *The Mind of the Child*. Sully, *Studies of Childhood*. Shinn, *Biography of a Baby*. Moore, *Mental Development of a Child*. Hall, *Notes on Study of Infants*. Whipple, *Manual of Mental and Physical Tests*, Chap. VI.

## 2. *Habit.*

- (a) The growth of Instinct into Habit.
- (b) The physical basis of habit.
- (c) The laws of habit formation.
- (d) Pedagogical maxims concerning the formation of habit.
- (e) Practice. The practice curve.
- (f) Fatigue. Causes; effects; methods of measurement.

REFERENCES.—Rowe, *Habit Formation and the Science of Teaching*. James, *Principles of Psychology*, Chap. IV. James, *Text Book of Psychology*, Chap. IX. Thorndike, *Principles of Class Teaching*, Chaps. VII and VIII. Thorndike, *Elements of Psychology*, Chap. XIII. Drummond, *The Child*, Chap. XI. McDougall, *Physiological Psychology*, Chap. II. Bair, *The Practice Curve*, Psychological Review Monograph Supplement, No. 10 (1902), pp. 1—70. Kirkpatrick, *Fundamentals of Child Study*, Chap. XVII. Thorndike, *Mental Fatigue*, Psy. Review, Vol. VII, No. 6. Findlay, *Principles of Class Teaching*, Chap. XIV. Angell and Coover, *General Practice Effect of Special Exercise*. Heck, *Mental Discipline*, Chapter on Experiments. Bawden, *Study of Lapses*, Psychological Review Monograph Supplement, Vol. iii, No. 4, pp. 1—122. Bolton, *Relation of Motor Power to Intelligence*, American Journal of Psychology, Vol. xiv, pp. 622—631. Bryan and Harter, *Studies on the Telegraphic Language*, Psychol. Review, Vol. vi (1899), pp. 346—375. Cornman, *Spelling in the Elementary School*. Judd, *Genetic Psychology*, pp. 161—235 and 236—264. Swift, *Mind in the Making*, Chap. VI. Woodworth, *Accuracy of Voluntary Movement*, Psychol. Rev. Monograph Supplement, Vol. iii, No. 13, 1899, pp. 1—114. Bagley, *The Psychology of School Practice*, Psychol. Bulletin, March, 1909. Thorndike, *Effect of Practice in a case of a Purely Intellectual Function*, American Jour. of Psychology, July, 1908. Mumford, *Dawn of Character*, Chaps. V, VI, and Appendix. Myers, *Experimental Psychology*, Chaps. III and VI. Wimms, *The Relative Effects of Fatigue and Practice produced by different kinds of Mental Work*, British Jour. of Psychology, 1907.

## 3. *Association.*

- (a) The Herbartian idea of Association.
- (b) The physical basis of Association.
- (c) Association Experiments.
  - (1) Uncontrolled Association.
  - (2) Controlled Association—part-wholes, genus-species, and opposites.

- (d) Rapidity of Association.
- (e) The Law of Association.
- (f) Voluntary association.

REFERENCES.—James, *Text Book of Psychology*, Chap. XVI. James, *Principles of Psychology*, Chap. XIV. Calkins, *Association*, Psychol. Review Monograph Supplement 2, Feb. 1896. McDougall, *Physiological Psychology*, Chap. VII. Stott, *Groundwork of Psychology*, Chap. VII. Thorndike, *Elements of Psychology*, Chap. XVI. Whipple, *Manual of Mental and Physical Tests*, Chap. IX. Titchener, *Primer of Psychology*, Chap. VII. Thorndike, *Notes on Child Study*, Chap. XII.

#### 4. Memory.

- (a) Memory, Association and Habit.
- (b) Good and bad memories.
- (c) Logical and Rote memories.
- (d) Can memory be trained?
- (e) Memory tests.

REFERENCES.—James, *Text Book of Psychology*, Chap. XVIII. James, *Principles of Psychology*, Chap. XVI. Thorndike, *Notes on Child Study*, Chap. II. Henderson, *Study of Memory for Connected Trains of Thought*, Psychol. Review Supplement, No. 23, Dec., 1903. Winch, *The Transfer of Improvement in Memory in School Children*, British Jour. of Psychology, Jan., 1908, pp. 284—293. Pillsbury, *The Effects of Training on Memory*, Educational Review, June, 1908. Whipple, *Manual of Mental and Physical Tests*, Chap. IX. Thorndike, *Elements of Psychology*, Chap. XVI. McDougall, *Physiological Psychology*, Chaps. VII and VIII. Thorndike, *Memory for Paired Associates*, Psychol. Review, Vol. xv, pp. 122—128. Welton, *Educational Psychology*, pp. 368—374. Morgan, *Psychology for Teachers*, Chap. III.

#### 5. Thinking and Reasoning.

- (a) Types of thinking.
- (b) Steps in thinking.
- (c) Concrete and abstract thinking.
- (d) Induction and Deduction.
- (e) Language and thinking: development of meaning in words.
- (f) Training children to think and study.

REFERENCES.—Dewey, *How we Think*. McMurtry, *How to Study*. Thorndike, *Elements of Psychology*, Chap. XVII. Thorndike, *Principles*

of Teaching, Chap. X. James, *Text Book of Psychology*, Chap. XXI. James, *Principles of Psychology*, Chap. XXII. Miller, *The Psychology of Thinking*. Earhart, *Teaching Children to Study*.

## 6. Suggestion and Imitation.

- (a) Meaning of terms.
- (b) Suggestion and Hypnotism.
- (c) Source of suggestion—prestige.
- (d) Importance and uses of suggestion.
- (e) The crowd and mob mind. Revivals, Fashion, Custom, etc.
- (f) Limits of suggestion in Education.
- (g) Experiments in suggestion.

REFERENCES.—Keatinge, *Suggestion in Education*. James, *Principles of Psychology*, Chap. XXVII. Ross, *Social Psychology*, Chaps. II—VIII. Thorndike, *Elements of Psychology*, Chap. XVIII. Kirkpatrick, *Fundamentals of Child Study*, Chap. VIII. Bagley, *Educative Process*, Chap. XVI. Morgan, *Psychology for Teachers*, Chap. VI. Stout, *Groundwork of Psychology*, Chap. VIII. King, *Psychology of Child Development*, Chap. X. Whipple, *Manual of Mental and Physical Tests*, Chap. X. Waldo, *Imitation in Children*, *Child Study Monthly*, Vol. ii, pp. 75–87. Haskell, Ellen M., *Imitation in Children*, *Pedagogical Seminary*, Vol. iii.

## 7. Interest and Attention.

- (a) Meaning and relation of terms.
- (b) Factors involved.
- (c) Classification of attention.
- (d) Theory of Interests.
- (e) Development of Interests.
- (f) Typical Studies of Interests.

REFERENCES.—Thorndike, *Elements of Psychology*, Chap. XX. King, *Psychology of Child Development*, Chaps. XII, XIII and XIV. Thorndike, *Principles of Teaching*, Chap. V. Stout, *Groundwork of Psychology*, Chap. VI. Bagley, *Educative Process*, Chap. VI. James, *Text Book of Psychology*, Chap. XIII. Arnold, *The Psychology of Interest*, *Psychological Review*, Vol. xiii, pp. 221–238 and 291–315. Titchener, *Primer of Psychology*, Chap. V. Barnes, *A Study of Children's Interests*, *Studies in Education*, Vol. i, p. 203. Barnes, *Interest in History*, *Studies in Education*, Vol. i, p. 83. Barnes, *Children's Ideals*, *Pedagogical Seminary*, Vol. vii, pp. 3–12. M. S.

- Barnes, *The Historic Sense among Children*, Studies in Education, Vol. i, pp. 43 ff. Welton, *Psychology of Education*, Chap. VII. James, *Talks to Teachers on Psychology and Life's Ideals*. Thorndike, *Principles of Teaching*, Chap. V. Taylor, *Some Practical Aspects of Interest*, Pedagogical Seminary, Vol. v, p. 497. Wissler, *Pupils' Interest as Influenced by the Teacher*, Child Study Monthly, Vol. iv, p. 159.

## 8. Movements.

- (a) Kinds of movements.
- (b) Physical basis of movement.
- (c) Automatic movements.
- (d) Skilled movements. Acquisition of skill.
- (e) Co-ordinated actions and movements.
- (f) Connection between movements and thought.
- (g) Growth of motor power and its relation to mental development.
- (h) Handwork; gymnastics; and free play.

- REFERENCES.—Thorndike, *Elements of Psychology*, Chap. XIV. Thorndike, *Principles of Class Teaching*, Chap. XIII. Kirkpatrick, *Fundamentals of Child Study*, Chap. V. McDougall, *Physiological Psychology*, Chap. VIII. James, *Text Book of Psychology*, Chap. XXIII. Hall, *Adolescence*, Chap. III. Heck, *Mental Discipline*, Chapter on Experiments. James, *Principles of Psychology*, Chap. XXIII. Titchener, *Primer of Psychology*, Chap. IX. Thorndike, *Principles of Teaching*, Chaps. XIII and XIV. Whipple, *Manual of Mental and Physical Tests*, Chap. V.

## 9. Methods of Learning.

- (a) Trial and Success.
- (b) Imitation.
- (c) Ideas.

- REFERENCES.—Thorndike, *Notes on Child Study*, Chap. 6. Thorndike, *Human Nature Club*, Chap. III. Thorndike, *Popular Science Monthly*, Vol. iv, pp. 480—490. Welton, *Psychology of Education*, Chaps. IX and X. Stout, *Manual of Psychology*, pp. 284—287. Cole, *Concerning the Intelligence of Raccoons*, Journal of Comparative Neurology and Psychology, Vol. xvii, pp. 211—261. Groos, K., *Play of Animals*. Yerkes, *The Dancing Mouse*. Yerkes and Huggins, *Habit-formation in the Crawfish*, Psychological Review Monograph Supplement, Vol. iv, pp. 565—577. Whipple, *Manual of Mental and Physical Tests*, Chap. IX.

## IV. DESCRIPTIVE PSYCHOLOGY

1. *Percepts and Ideas.*

- (a) Formation of Percepts and Ideas.
- (b) Difference between a percept and an idea.
- (c) The development of perception.
- (d) Perceptions of quality, space and time.
- (e) Illusions of Perception.

REFERENCES.—Thorndike, *Elements of Psychology*, pp 35—42. Titchener, *Primer of Psychology*, Chap. VI. James, *Text Book of Psychology*, Chaps. XX and XXI. James, *Principles of Psychology*, Chaps. XII, XV, XIX.

2. *Mental Imagery.*

- (a) Visual, auditory, motor, tactile, gustatory and olfactory images.
- (b) Relative importance of the above.
- (c) Individual differences in Imagery.
- (d) The Growth of Imagination.

REFERENCES.—Thorndike, *Elements of Psychology*, Chap. III. James, *Principles of Psychology*, Chap. XVIII. James, *Text Book of Psychology*, Chap. XIX. Galton, *Inquiries into Human Faculty*, pp. 57—79. Stout, *Manual of Psychology*, pp. 409—436. Munford, *Dawn of Character*, Chap. IV. Thorndike, *Notes on Child Study*, Chap. 10.

3. *The feelings—Emotions.*

- (a) Nature of Emotions.
- (b) Theories of Emotions.
- (c) Development of Emotions.
- (d) Classification of Emotions.
- (e) Influence of Emotion on action.
- (f) The Training of Emotions.

REFERENCES.—James, *Text Book of Psychology*, Chap. XXII. James, *Principles of Psychology*, Chap. XXV. McDougall, *Physiological Psychology*, Chap. VI. Thorndike, *Elements of Psychology*, Chap. V. Thorndike, *Principles of Teaching*, Chap. XII. Titchener, *Primer of Psychology*, Chap. VIII. Darwin, *Expression of the Emotions*. Thorndike, *Notes on Child Study*, Chap. 14. Ribot, *Psychology of the Emotions*.

## V. PSYCHOLOGY OF CHILDHOOD AND ADOLESCENCE.

### 1. *Special Features of Childhood.*

- (a) Physical.
- (b) Mental.
- (c) Individual Differences in children.

REFERENCES.—Thorndike, *Notes on Child Study*, Chap. 20. Preyer, *Mind of the Child*. Shinn, *Biography of Baby*. Moore, *Mental Development of a Child*. Tracy, *The Psychology of Childhood*. Drummond, *The Child*, Chap. IV. Baldwin, *The Story of the Mind*, Chap. IV. Mumford, *The Dawn of Character*, Chaps. II, III, IV, XI, XII, XIV.

### 2. *Adolescence.*

- (a) Growth and other Physiological changes.
- (b) Adolescence as a period of storm and stress; of rapid alternations of feeling; of emotional instability.
- (c) Adolescent changes in instincts and feelings.
- (d) The development of social and religious instincts.
- (e) The Education of the adolescent.

REFERENCES.—Slaughter, *The Adolescent*. Hall, *Adolescence*. Thorndike, *Notes on Child Study*, Chap. 19. Burnham, *Study of Adolescence*, Ped. Sem., Vol. i, p. 174. Daniels, *The New Life: A Study of Regeneration*, American Journal of Psychology, Vol. vi, No. 1. Lancaster, *Psychology and Pedagogy of Adolescence*, Ped. Sem., Vol. v, p. 61.

## VI. THE STUDY OF EXCEPTIONAL CHILDREN.

### 1. *Geniuses and Defectives.*

- (a) As the extremes of the opposite ends of a continuous scale.
- (b) Relative proportions in community.
- (c) The education of geniuses and defectives.

REFERENCES.—Lapage, *Feeble-mindedness in Children of School Age*. Thorndike, *Educational Psychology*, Chap. XI. Norsworthy, *The Psychology of Mentally Deficient Children*. Board of Education, *Annual Report for 1908 of the Chief Medical Officer of the Board of Education*, Chap. VI; *For 1909*, Chaps. VI and VII. Kuhlmann, *Experimental Studies in Mental Deficiency*, American Jour. of Psychology, Vol. xv, pp. 291-4. Galton, *Hereditary Genius*. Galton,



*Inquiries into Human Faculty.* De Candolle, *Histoire des Sciences et des Savants depuis deux Siècles.* Ellis, *A Study of British Genius.* Galton and Schuster, *Noteworthy Families.* Galton, *English Men of Science*, 1874. *Report of the Royal Commission on the Care and Control of the Feeble-minded*, 1908. Galton, *Natural Inheritance*, p. 259. Elderton, and Pearson, *A First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring*, Memoir X of the Eugenics Laboratory Memoirs. Warner, *A Study of Children.* Tredgold, *A Clinical Lecture on Feeble-minded Children*, The Medical Press, Aug. 25 and Sept. 1, 1909. Potts, *The Recognition and Training of Congenital Mental Defectives*, British Medical Journal, May 9, 1908. Thorndike, *Notes on Child Study*. Chap. 22.

## 2. Blind and Deaf.

### (a) Factors in the Education of the blind and the deaf.

REFERENCES.—*Annual Report for 1908 of the Chief Medical Officer of the Board of Education*, Chap. VI.; For 1909, Chap. VI. Allen, *Education of Defectives*, in Butler's *Education in the U.S.*, 1900, Vol. ii, pp. 769—810. Articles in *Encyclopædia Britannica*. Hall, *Laura Bridgman*. Fay, *Inheritance of Deafness*, *Nature*, 61: 97. Helen Keller, *The Story of My Life* (Review in *Ped. Sem.*, Vol. x). Love, *Deaf-mutism*. Wylie, *Psychology and Pedagogy of the Blind*, *Pedagogical Seminary*, Vol. ix, pp. 126—160.

## VII. THE PSYCHOLOGY OF SPECIAL SUBJECTS.

### 1. Reading.

REFERENCES.—Huey, *Psychology and Pedagogy of Reading*. Dearborn, *The Psychology of Reading*. Quantz, *Problems in the Psychology of Reading*, *Psychol. Review Monograph Supplement*, No. 5, Dec., 1897. Whipple, *Manual of Mental and Physical Tests*, Chap. VII. Cattell, *The Inertia of the Eye and Brain*, *Brain*, Vol. viii, 1886, p. 295. Dodge, *The Psychology of Reading*, *Psychological Review*, Vol. 8, 1901. Judd, *Genetic Psychology for Teachers*, pp. 236—264.

### 2. Spelling.

REFERENCES.—Rice, *The Futility of the Spelling Grind*, *Forum*, June, 1898, April and June, 1897. Coraman, *Spelling in the Elementary School*. Douse, *Psychology of Mis-spellings*, *Mind*, xxv, p. 85. Burnham, *The Hygiene and Physiology of Spelling*, *Ped. Sem.*, Vol. xiii, p. 474.

### 3. *Arithmetic.*

- REFERENCES.—Stone's *Arithmetical Abilities*. Smizzallo, *The Teaching of Primary Arithmetic*, Teachers' College Record, Vol. xii, No. 2. Phillips, *Number and its Application Psychologically Considered*, Ped. Sem., 1897-8, Vol. 5, pp. 221-281. Smith, *The Teaching of Arithmetic*, Chap. XVI, Teachers' College Record, Vol. x, No. 1.

### 4. *Handwriting.*

- REFERENCES.—Thorndike, *Handwriting*, Teachers' College Record, Vol. xi, No. 2. Judd, *Genetic Psychology for Teachers*, pp. 161-235. Downey, *Control Processes in Modified Handwriting*, Psychol. Review Monograph Supplement, Vol. ix, pp. 1-147. McAllister, *Researches on Movements used in Writing*, Studies from the Yale Psychological Laboratory, Series I, Vol. viii, pp. 21-63.

## APPENDIX II.

## References dealing with Special Aspects of Educational Psychology.

- Abbott, E. E. *On the Analysis of the factor of Recall in the Learning Process*. "Psychological Review Monograph Supplement," Whole number 44, Nov., 1909.
- Andrews, B. R. *Habit*. "American Journal of Psychology," vol. xiv, pp. 121-149.
- Angell and Coover. *General Practice Effect of Special Exercise*. "American Journal of Psychology," 1907 (July).
- Bair, J. H. *The Practice Curve*. "Psychological Review Monograph Supplement," No. 19, Nov., 1902.
- Barnes, Earl. *A study of Children's Interests*. "Studies in Education," vol. i, p. 203.
- Barnes, Earl. *Interest in History*. "Studies in Education," p. 83.
- Barnes, Earl. *Children's Ideals*. "Pedagogical Seminary," vol. vii, pp. 3-12.
- Barnes, M. S. *The Historic Sense among Children*. "Studies in Education," vol. i, pp. 43 ff.
- Bawdon, H. H. *Study of Lapses*. "Psychological Review Monograph Supplement," vol. iii, No. 4, pp. 1-122.
- Boas, F. *Growth of American Children*. "Report, United States Commissioner of Education," 1896-7, ii.
- Bolton, F. E. *Relation of Motor Power to Intelligence*. "American Journal of Psychology," vol. xiv, pp. 622-651.
- Breese, B. B. *On Inhibition*. "Psychological Review Monograph Supplement," No. 11.
- Brown, W. *An objective study of Mathematical Intelligence*. "Biometrika," 1910, vii, p. 352.

- Bryan and Harter. *Studies in the Telegraphic Language*.  
 "Psychological Review," vol. vi, 1899, p. 346.
- Burt, C. *Experimental Tests of General Intelligence*.  
 "British Journal of Psychology," vol. 3, pp. 94—177  
 (1909).
- Cornman, O. P. *Spelling in the Elementary School*.  
 1902.
- De Candolle, A. *Histoire des sciences et des savants  
 depuis deux siècles*. 1873 and 1885.
- Dexter, E. G. *Conduct and the Weather*. "Psychological  
 Review Supplement," No. 10, May, 1899.
- Downey, J. E. *Control Processes in Modified Hand-  
 writing*. "Psychological Review Monograph Sup-  
 plement," vol. ix, pp. 1—147.
- Galton, F. *Inquiries into Human Faculty*. I. *Mental  
 Imagery*, pp. 57—79. II. *Number-forms*, pp. 79—  
 105. III. *History of Twins*, pp. 155—173.
- Galton, F. *Hereditary Stature*. "United States Com-  
 missioner of Education Report," 1895-6, pp. 1175-98.
- Hall, G. S. *Aspects of Child Life*, especially chapters i,  
 iv, v, vi and vii.
- Henderson, E. W. *A Study of Memory for connected  
 Trains of Thought*. "Psychological Review Mono-  
 graph Supplement," No. 23, Dec., 1903.
- Huey, E. B. *Psychology and Pedagogy of Reading*.
- Miller, I. E. *Psychology of Thinking*.
- Moore, Kathleen C. *Mental Development of a Child*.  
 "Psychological Review Monograph Supplement," 3  
 Oct., 1896, p. 150.
- Norsworthy, N. *The Psychology of Mentally Deficient  
 Children*, 1906.
- Pearson, K. I. *On the Laws of Inheritance in Man*.  
 II. *On the Inheritance of the Mental and Moral  
 Character in Man and its comparison with the  
 Inheritance of the Physical Character*. "Biomet-  
 , trika," vol. iii, 1904, pp. 113—190.
- Peterson, H. A. *On the Influence of Complexity and  
 Dissimilarity on Memory*. "Psychological Review  
 Monograph Supplement," No. 49, Nov., 1909.

- Pillsbury, W. B. *The Effects of Training on Memory*. "Educational Review," June, 1908.
- Quantz, J. O. *Problems in the Psychology of Reading*. "Psychological Review Supplement," No. 5, Dec., 1897.
- Starch, D. *A Demonstration of the Trial and Error Method of Learning*. "Psychological Bulletin," 7 Jan., 1910, 20-23.
- Thorndike, E. L. *Memory for Paired Associates*. "Psychological Review," vol. 15, 1908, pp. 122.
- Thorndike, E. L. *Animal Intelligence*. "Psychological Review Monograph Supplement," No. 8, Jan., 1898.
- Thorndike, E. L. *Mental Fatigue*. "Psychological Review," vol. vii, No. 6.
- Thorndike, E. L. *The Mental Life of Monkeys*. "Psychological Review Monograph Supplement," No. 15, May, 1901.
- Thorndike, E. L. *Handwriting*. "Teachers' College Record," March, 1910.
- Wimms, J. H. *The Relative Effects of Fatigue and Practice produced by different kinds of Mental Work*. "British Journal of Psychology," 1907, i, p. 153.
- Whipple, G. M. *The Effect of Practice upon the range of Visual Attention and of Visual Apprehension*. "Journal of Educational Psychology," i, 1910, pp. 249-262.
- Winch, W. H. *Some measurements of Mental Fatigue in Adolescent Pupils in Evening Schools*. "Journal of Educational Psychology," i, 1910, pp. 13-23 and 83-100.
- Winch, W. H. *The Transfer of Improvement in Memory in School Children*. "British Journal of Psychology," Jan., 1908, pp. 284-293.
- Woodworth, R. S. *The Accuracy of Voluntary Movements*. "Psychological Review Monograph Supplement," No. 13, July, 1899.
- Yoakum, C. S. *An Experimental Study of Fatigue*. "Psychological Review Monograph Supplement," No. 46, Aug. 1909.

## GENERAL DIRECTIONS FOR STUDENTS WORKING IN THE FIELDEN SCHOOLS.

STUDENTS attend for two purposes:—

(a) All students in University Courses on Educational Psychology, School Hygiene, and Principles of Teaching visit the schools as directed by the lecturers to make observations.

The method of study for such work is indicated by the lecturers from time to time. Students should bear in mind at all times that attendance of visitors in numbers is a disturbance of attention, however much both the scholars and the staff become accustomed to it. It is needful, therefore, that any instructions given should be steadily followed. A plan of the classrooms will be found on each floor, and any enquiries may be made in the school office.

(b) Most students are offered an opportunity of class-teaching, taking up some branch of the curriculum in one class, and sharing in the work during a complete term. When engaged in such duty, a student is described as a student-teacher. As a rule he has become acquainted, while attending for purposes of observation, both with the scholars and staff, and with the curriculum: and the acquaintance should be extended both by reading and by attendance at other than the prescribed hours when opportunity offers. *The school is open at all times during school hours to all students in the Department without making special application. It is a rule of the institution that visitors enter and leave classrooms during school hours without expecting any attention from the teacher in charge.\** The

\*The same rule is followed with reference to all visitors who come to the School. They gain a far better impression of the Institution, both of its defects and advantages, if they go through the building without attendance. The teachers are always glad as opportunity arises to explain what is going on but visitors should not expect to be accompanied by a guide.

Scheme Books, the Time Table and Plan of School Pursuits to be found in each room should together explain to an onlooker the nature of the proceedings.

(i.) Student-teachers are assigned to the Fielden School by their Tutor, and they report to the Superintendent at the Schools as soon as term begins. They undertake the work under the direction of a Demonstrator who may, or may not be, a member of the school staff. At the conclusion of the work, the Demonstrator's report, countersigned by the Superintendent, is sent to the University office, and is reckoned for the purposes of Certificate or Diploma along with other examination results.

(ii.) During the first few days of attendance the student does not take charge of a class, but qualifies himself (*a*) by witnessing the proceedings as conducted by the teacher-in-charge (the first duty assigned to him is to write up the diary of these proceedings in the Scheme Book, right-hand pages); (*b*) by studying the Course planned for the Session, beginning with the account posted in the classroom or printed elsewhere, and tracing the sequel in the entry made by the teacher-in-charge on the left-hand pages of the Scheme Book; (*c*) by reading the relevant literature (pedagogic and other) which has guided those who direct the proceedings\* in which he is to share, and by getting used to the apparatus; (*d*) by becoming acquainted with the scholars: a list of their names, in the order of their seats, should be found in each room, and this the student-teacher should copy, on his first day, into his own book. From his work in Educational Psychology, he will already have studied how to notice idiosyncrasies.

Important data gained in these four ways should be entered in the Lesson Note-Book, but superfluous copying is to be deprecated. This book, however, should always

\* I avoid of set purpose speaking always of "teaching"—for the besetting vice is notorious! (See Syllabus of Principles above, Sect. VII., 9 and 11.) The vice is, that "the teacher" plays the chief rôle—expounding, correcting and explaining—his mind filled with the subject matter, not concentrated on the difficulties of the scholars.

be brought into the classroom, available for inspection by any officer of the institution who is concerned in the work.

(iii.) In due course he is invited by the teacher-in-charge to take an active share in the proceedings: at first by sharing in oversight (or correction of written work) when the scholars are working separately: then by taking sole charge when the class is taken collectively.

• (iv.) His Lesson Note-Book should contain a record in diary form of the progress made since he joined the class: he should endeavour to trace the psychological processes which distinguish the pursuit (see Syllabus on Method, Sec. VI, Chaps. 1—10) and enter comments or questions which demonstrators can discuss with him. Before undertaking separate responsibility in charge of a lesson hour, he should make a sketch in his Lesson Note-Book of the course which he anticipates the proceedings will follow, and (whenever possible) discuss this beforehand with the Demonstrator.\*

• *Revision.* From the first, his notes (and his entries in the Scheme Book) should not be confined to subject-matter, but should indicate the method he intends to adopt, including points where repetition and revision are required. Also where individual scholars are seriously behindhand and need separate treatment, such facts should be briefly noted. Any striking physical hindrances to attention (*e.g.*, bad posture, defective eyesight or hearing—also ventilation and temperature) should not escape notice.

(v.) If the work proceeds with success, opportunity is given for a student teacher to take the class during at least one complete Section, and every encouragement is given to him to control the work of the class with as much independence as possible. It should be realized, however, that he may go seriously wrong unless at times the teacher-in-charge or the Demonstrator resume control for a few

\* Sometimes a student is well advised to make a preliminary sketch on separate paper of the details of a new Section before he undertakes it, and to submit this for revision: but this is not obligatory in all cases.



minutes or for a longer time: the exchange is effected with a minimum of disturbance, and the scholars, who are accustomed to the control of many teachers, do not, on that account, treat the student-teacher with less respect. He comes to them, as all their instructors do, not to force attention to distasteful exercises, but to help all in reaching an end which is appreciated by all.

(vi.) Attention will be needed to matters of routine? Home exercises, care of desks and other apparatus, mode of dismissing a class, duties of monitors, care of class library and the like:—the student's Note book should include reference to such matters. Rules of class management (see Syllabus, Corporate Life of School, Sect. VII, 9) need special attention. If the class is being taught collectively, all 'must' attend, and the teacher should not proceed unless he has gained attention. If questions are asked (either by himself or a scholar) those who wish to answer raise their hands and only the one who 'catches the speaker's eye' should reply. Eagerness to share in the discussion need only be repressed when it disturbs the progress.

All directions, as to use of material, should be anticipated, and given to the whole class: an eye should be kept on the watch so that hurry at the close is avoided: before dispersing, all should know the point which has been reached, so as to be ready to resume the proceedings on the next occasion (thus the 'Aim' for the next lesson is ready when called for). The class is frequently left in sole charge of a student-teacher: if under such circumstances either individual scholars or the class as a whole get out-of-hand, he should consult the teacher-in-charge after the hour, and, when possible, himself undertake what is necessary by way of restoration of order (Syllabus, Sect. VII, 13, 14).

At the close of the lesson hour, materials have often to be put away: monitors to open windows, to clean the blackboard, etc.: the room should be left ready for the next hour, and if a student is liable to neglect such points, he should note them in his Lesson Note-Book beforehand.

Habits of this kind are of the first importance both for the scholars, and for the student-teacher learning to direct their activities. In these, as in all matters, the student-teacher assumes the functions of a regular teacher, with the same sense of responsibility that he has witnessed in all good schools. Lack of attention to details in this School will engender in him habits of carelessness which will militate against his efficiency in later days.

(vii.) Hence his interest should be extended to the school as a whole. He is welcome to attend at the Opening Exercises in the morning; to share in directing the school games, where volunteers are always in request: to join the scholars in visits and excursions: to help the staff in welcoming parents (Sect. VII, 17). The small size of the classes makes it possible, in a brief period, for a student-teacher to make real acquaintance with individual scholars—such acquaintance is a necessary basis for successful teaching. And this general interest in the school reacts immediately on the success of his Course of Teaching; for the scholars readily respond to his lead if they find him identified with the general life of the place; and he himself understands his task far better as he recognizes its bearings upon the entire plan of activities which engage the school as a society.

J. J. F.



## MANCHESTER UNIVERSITY PUBLICATIONS.

### ANATOMICAL SERIES.

No. I. STUDIES IN ANATOMY from the Anatomical Department of the University of Manchester. Vol. iii. Edited by ALFRED H. YOUNG, M.B. (Edin.), F.R.C.S., Professor of Anatomy. Demy 8vo, pp. ix, 289, 23 plates. 10s. net. (Publication No. 10, 1906.)

"This forms the third volume of the Studies in Anatomy issued by the Council, and contains contributions of considerable interest. The volume is well printed and bound. It speaks well for the activity of investigation at Manchester."—*Lancet*.

"The volume is well got up and is evidence of the continuation of the excellent work which has been carried on for so long a period, under Professor A. H. Young's supervision, and has been encouraged and stimulated by his own work."—*British Medical Journal*.

### BIOLOGICAL SERIES.

No. I. THE HOUSE FLY. *Musca domestica* (Linnaeus). A Study of its Structure, Development, Bionomics and Economy. By C. GORDON HOWITT, D.Sc., Dominion Entomologist, Ottawa, Canada, and late Lecturer in Economic Zoology in the University of Manchester. Demy 8vo, pp. xiv, 200, 10 plates. 20s. net.

(Publication No. 52, 1910.)

"The book is concisely written and beautifully illustrated by coloured plates."—*Lancet*

"In the first the author deals with the anatomy of the fly, in the second with the habits, development, and anatomy of the larva, and in the third with the bionomics, allies, and parasites of the insect, and its relations with human disease. . . . The book affords an excellent illustration of the amount of original and useful work that may be done on the commonest and best known of animals."—*Nature*.

"Of the book itself, it may be said that it is a model of its kind."

—*Athenaeum*.

### CELTIC SERIES.

No. I. AN INTRODUCTION TO EARLY WELSH. By the late Prof. J. STRACHAN, LL.D. Demy 8vo, pp. xvi, 294. 7s. 6d. net.

(Publication No. 40, 1908.)

"The Grammar as a whole is of course a very great advance on the pioneer work of Zeuss; Dr. Strachan had fuller and more accurate texts to work with, and possessed a knowledge probably unsurpassed of the results of recent progress in Celtic philology, which he himself did so much to promote."—Professor Morris Jones in the *Manchester Guardian*.

"The work is an excellent introduction to the study of early Welsh. We can strongly recommend it to Welsh students; it is undoubtedly a work which no student of Celtic literature can afford to be without."

—*North Wales Guardian*.

"The work is destined, of course, to become the text-book in early Welsh wherever taught."—*Western Mail*.

SHERRATT & HUGHES

MANCHESTER UNIVERSITY PUBLICATIONS.

CELTIC SERIES.

No. II. THE LANGUAGE OF THE ANNALS OF ULSTER. By  
TOMÁS O'MÁILLE, M.A., Professor of Irish in University College,  
Gajway. Demy 8vo, pp. xiv. 228. 7s. 6d. net.

(Publication No. 53, 1910.)

The objects of this dissertation are firstly to investigate the date at which certain old-Irish phonological developments took place, and secondly to give an account of old-Irish declension as evidenced by the language of the Annals of Ulster. An Appendix on the analysis of Irish personal names is appended.

"As a valuable book, the work of an excellent scholar, as treating of a most interesting period of the Irish language, as containing apart from its very great academic use a surprising amount of matter that must fascinate all who have any feeling for the blend of old and new in Modern Irish, this elaborate treatise must be welcomed with joy. . . . Learned the book is, patiently methodical, full of the invaluable statement of "document," widely enlightening for the scholars, and they already know that, and need no pushing towards the book, for which they and their special works have been impatiently waiting."

—*Freeman's Journal*.

"The book is a painstaking and accurate piece of work, and does honour to its author and the University which has printed it."

—*The Athenaeum*.

"It is a work of fine scholarship, which will prove of great service to the student of early and middle Irish, and it is a valuable testimony of the interest which is being taken in our day in Irish letters."

—*Scotsman*.

"Obviously we have here an invaluable guide to the early history of the language. The book is carefully indexed, and will be found invaluable as a work of reference." —*Irish Times*.

"It is one of the most important contributions to old Irish studies issued in recent years. The author had the enormous advantage of knowing modern Irish from childhood, and his investigations of the language of the annals are evidence of the advantage."

—*Irish Independent*.

"The book is notable as extending the lines of investigation, chiefly directed upon Old Irish, with which we have grown familiar in the last ten or twelve years." —*Manchester Guardian*.

CLASSICAL SERIES.

No. I. A STUDY OF THE BACCHAE OF EURIPIDES. By G.  
NORWOOD, M.A., Assistant Lecturer in Classics. Demy 8vo, pp. xx,  
188. 5s. net. (Publication No. 31, 1908.)

"The interest of Mr. Norwood's book, which . . . is a very welcome addition to the bibliography of Euripides, and a scholarly and interesting piece of work, displaying erudition and insight beyond the ordinary, lies in the way in which, by applying Dr. Verrall's methods . . . he first shows up difficulties and inconsistencies, some of which have hardly been noticed before . . . and then produces his own startling theory, which he claims is the great solvent of all the perplexities."

—*Saturday Review*.

34, Cross Street, Manchester

## SHERRATT & HUGHES

### MANCHESTER UNIVERSITY PUBLICATIONS.

#### CLASSICAL SERIES.

"Unless very strong evidence can be produced against Mr. Norwood's view, it must be accepted as the true solution of the problem. . . . Mr. Norwood is generally clear, and abounds in illuminating thoughts. He has added a full bibliography (running to twenty-three pages) of writings on Euripides, and for this every scholar will offer his sincere thanks. . . . He has done a very good piece of work."—*Athenæum*.

"This volume forms the first of a Classical Series projected by the Manchester University, who are to be congratulated on having begun with a book so original and full of interest. . . . It is admirably argued, and is instinct with a sympathetic imagination. It is, at the very least, an extremely able attempt to solve a very complex problem."

—*Manchester Guardian*.

"Mr. Norwood's book has even in the eyes of a sceptic the considerable merit of stating the hypothesis in a very thoroughgoing and able manner, and at least giving it its full chance of being believed."

—Professor Gilbert Murray in the *Nation*.

"L'interprétation de M. Norwood est certainement très ingénieuse; elle est même très séduisante."—*Revue Critique*.

#### ECONOMIC SERIES.

No. I. THE LANCASHIRE COTTON INDUSTRY. By S. J. CHAPMAN, M.A., M. Com., Stanley Jevons Professor of Political Economy and Dean of the Faculty of Commerce. Demy 8vo, pp. vii. 309. 7s. 6d. net. (Publication No. 4, 1904.)

"Such a book as this ought to be, and will be, read far beyond the bounds of the trade."—*Manchester Guardian*.

"There have been books dealing with various phases of the subject, but no other has so ably treated it from the economic as well as from the historical point of view."—*Manchester Courier*.

"The story of the evolution of the industry from small and insignificant beginnings up to its present imposing proportions and highly developed and specialised forms, is told in a way to rivet the attention of the reader . . . the book is a valuable and instructive treatise on a fascinating yet important subject."—*Cotton Factory Times*.

(GARTSIDE REPORT, No. 1.)

No. II. COTTON SPINNING AND MANUFACTURING IN THE UNITED STATES OF AMERICA. By T. W. UTTLEY, B.A., Gartside Scholar. Demy 8vo, pp. xii. 70. 1s. net.

(Publication No. 8, 1905.)

"The writer gives ample details concerning wages and other features connected with typical mills . . . and the information thus gathered is of interest and value to the factory operative as well as the student and economist."—*Cotton Factory Times*.

"Mr. Uttley describes how he visited the mills in various States in a very systematic and detailed manner. Altogether the report makes an admirable and welcome collection of information, and will be found on many occasions worthy of reference."—*Textile Mercury*.

**MANCHESTER UNIVERSITY PUBLICATIONS.  
ECONOMIC SERIES.**

(GARTSIDE REPORT, No. 2.)

No. III. SOME MODERN CONDITIONS AND RECENT DEVELOPMENTS IN IRON AND STEEL PRODUCTION IN AMERICA, being a Report to the Gartside Electors, on the results of a Tour in the U.S.A. By FRANK POPPLEWELL, B.Sc., Gartside Scholar. Demy 8vo, pp. xii. 123. 1s. net.

(Publication No 21, 1906.)

"Mr. Popplewell gives a clear exposition of the results of specialisation in production, of the development of ore-handling machinery, and of the general use of the charging machine, features that characterise American practice. He shows, too, that the colossal blast-furnace with huge yield due to high-blast pressure, regardless of consumption of steam and boiler coal, is giving place to a blast furnace of more modest dimensions."

"The impression derived from reading Mr. Popplewell's report is that many of the most striking developments, admirable as they are, were designed to meet special wants, and are not necessarily applicable in Great Britain."—*Nature*.

(GARTSIDE REPORT, No. 3.)

No. IV. ENGINEERING AND INDUSTRIAL CONDITIONS IN THE UNITED STATES. By FRANK FOSTER, M.Sc., Gartside Scholar. Demy 8vo, pp. ix. 106. 1s. net.

(Publication No 22, 1906.)

"The report under review is of very great interest to those connected with the manufacturing branch of engineering in this country, many of whom will have to relinquish their preconceived notions regarding American methods, if Mr. Foster's conclusions are to be accepted."

—*Electrical Review*.

No. V. THE RATING OF LAND VALUES. By J.D. CHORLTON, M.Sc. Demy 8vo, pp. viii. 177. 3s. 6d. net. (Publication No. 23, 1907.)

"The first half of this book deserves to become a classic . . . is one of the best books on a practical economic question that has appeared for many years. It is not only scientifically valuable, but so well written as to be interesting to a novice on the subject."—*The Nation*.

"A very businesslike and serviceable collection of essays and notes on this intricate question."—*Manchester Guardian*.

"Mr. Chorlton deals clearly and concisely with the whole subject of rating and land values."—*The Standard*.

"The impartiality and candour of Mr. Chorlton's method are beyond dispute, and his book will repay careful study by all who are interested in the question, from whatever motive."—*Westminster Gazette*.

GARTSIDE REPORT, No. 4.)

No. VI. DYEING IN GERMANY AND AMERICA. By SYDNEY H. HIGGINS, M.Sc., Gartside Scholar. Demy 8vo, pp. xiii. 112. 1s. net. (Publication No. 24, 1907.)

"The book will . . . make a valuable addition to the technical literature of this country."—*Tribune*.

"The work is one which . . . should receive the attention of those who desire a general view of the German and American dyeing industries."—*Textile Manufacturer*.

**MANCHESTER UNIVERSITY PUBLICATIONS.  
ECONOMIC SERIES.**

**No. VII. THE HOUSING PROBLEM IN ENGLAND.** By ERNEST RIMSON DEWSNUP, M.A., Professor of Railway Economics in the University of Chicago. Demy 8vo, pp. vii. 327. 5s. net.

(Publication No. 25, 1907.)

"Professor Dewsnap's book on the housing problem consists of three distinct parts, each of which is a valuable contribution to economic science. In Part I, Professor Dewsnap tries to give a clear and definite account of the evil with which authorities in England are called upon to cope. Avoiding all special pleading and all evidence of the sensational kind which is apt to give a false idea of the extent and intensity of the evil of overcrowding, he does not on the other hand fall into the error of minimizing the evil.

"In Part II, Professor Dewsnap gives a most excellent and well-digested summary of the legislation which has been passed by Parliament since 1851 to cope with the evils of overcrowded houses, and of overcrowded areas.

"In Part III, the strictly informational and statistical work of the previous parts is utilized by the author to support his own conclusions as to the best methods of dealing with the problem of overcrowding."

"Whether or not the reader agrees with Professor Dewsnap in the conclusions he draws from his data, every student of economics must be grateful to him for the accuracy and care which have gone into the collection and arrangement of his material."—*The American Political Science Review*, vol. iii. No. 1, February, 1909.

(GARTSIDE REPORT, No. 5.)

**No. VIII. AMERICAN BUSINESS ENTERPRISE.** By DOUGLAS KNOOP, M.A., Gartside Scholar. Demy 8vo, pp. viii. 128. 1s. 6d. net.

(Publication No. 30, 1907.)

"The book is calculated to give a clear and accurate description, 'essentially intended for the general reader,' and the author has quite rightly eliminated everything of a technical character, giving his theme both the simplicity and the interest that are required. . . . The work might well have been doubled in length without any loss of interest. . . . Invaluable as a text-book."—*The Economic Journal*.

"Should on no account be missed, for it is a very good attempt at a survey of the enormous field of American business in the true and judicial spirit."—*Pall Mall Gazette*.

(GARTSIDE REPORT, No. 6.)

**No. IX. THE ARGENTINE AS A MARKET.** By N. L. WATSON, M.A., Gartside Scholar. Demy 8vo, pp. vii. 64. 1s. net.

(Publication No. 33, 1908.)

"A valuable and thorough examination of the conditions and future of Argentine commerce."—*Morning Leader*.

(GARTSIDE REPORT, No. 7.)

**No. X. SOME ELECTRO-CHEMICAL CENTRES.** By J. N. PRING, M.Sc., Gartside Scholar. Demy 8vo, pp. xiv. 137. 1s. 6d. net.

(Publication No. 41, 1908.)

"Concise, business-like, and furnished with some valuable papers of statistics, the report will prove well worthy of the study of anyone specially interested in this subject."—*Scotsman*.

"The reviewer says unhesitatingly that this Gartside Report . . . is the best all-round book on industrial electro-chemistry that has so far come to his notice."—*Electro-chemical and Metallurgical Industry*, May, 1909.



**SHERRATT & HUGHES**

**MANCHESTER UNIVERSITY PUBLICATIONS.**

**ECONOMIC SERIES.**

(GARTSIDE REPORT, No. 8.)

**No. XI. CHEMICAL INDUSTRY ON THE CONTINENT.** By HAROLD BARON, B.Sc., Gartside Scholar. Demy 8vo, pp. xi. 71. 1s. 6d. net. (Publication No. 44, 1909.)

"Well informed, well systematised, and written with businesslike precision, it deserves the attention of everyone interested in its subject."—*Scotsman*.

"For a good general account of the chemical industry on the Continent we think this report, so far as it goes, to be an excellent one and is, moreover, unlike many works on the subject, interesting to read."

—*Chemical Trades Journal*.

"Clearly and intelligently handled."—*The Times*.

**No. XII. UNEMPLOYMENT.** By Prof. S. J. CHAPMAN, M.A., M.Com., and H. M. HALLSWORTH, M.A., B.Sc. Demy 8vo, pp. xvi. 164. 2s. net, paper, 2s. 6d. net, cloth. (Publication No. 45, 1909.)

"On the whole, the authors offer a solid contribution, both as regards facts and reasoning, to the solution of a peculiarly difficult and pressing social problem."—*Cotton Factory Times*.

"... reproduces in amplified form a valuable set of articles, giving the results of an investigation made in Lancashire, which lately appeared in the *Manchester Guardian*. By way of Introduction we have an examination, not previously published, of the Report of the Poor-law Commission on Unemployment. There is a large accompaniment of Charts and Tables, and indeed the whole work bears the mark of thoroughness."

—*Guardian*.

(GARTSIDE REPORT, No. 9.)

**No. XIII. THE COTTON INDUSTRY IN SWITZERLAND, VORARBERG AND ITALY.** A Technical and Economic Study. By S. L. Besso, LL.B. Demy 8vo, pp. xv. 229. 3s. 6d. net. (Publication No. 54, 1910.)

"The large amount of information gathered has been carefully arranged. . . . The work is a worthy one, interesting to the general reader, and valuable to the captain of commerce, and inevitably suggests the desirability of having the remaining countries of the Continent similarly surveyed. . . . this volume, which is well worth careful study by all who are interested in the social and economic conditions of textile workers abroad."—*The Cotton Factory Times*.

"This volume may be heartily commended to the attention of all persons interested in every phase of cotton mill economics, and we congratulate Mr. Besso on the admirable manner in which he has set forth the results of his painstaking investigations. In these days of international comparisons, a series of volumes dealing in this way with every industrial country would be of considerable value to students of industrial and commercial affairs."—*The Textile Mercury*.

"... the facts and statistics the author marshals so clearly . . . a skilled investigator. For the rest, this volume does infinite credit alike to the author and to his University."—*Morning Leader*.

(GARTSIDE REPORT, No. 10.)

**No. XIV. SOME ELECTRICAL POWER DATA.** By HAROLD HARTLEY, M.Sc. [In the Press.]

MANCHESTER UNIVERSITY PUBLICATIONS.

• EDUCATIONAL SERIES.

No. I. CONTINUATION SCHOOLS IN ENGLAND & ELSEWHERE.

Their place in the Educational System of an Industrial and Commercial State. By MICHAEL E. SADLER, M.A., LL.D., Professor of the History and Administration of Education. Demy 8vo, pp. xxvi. 77s. 8s. 6d. net. (Publication No. 29, 1907.)

This work is largely based on an enquiry made by past and present Students of the Educational Department of the University of Manchester. Chapters on Continuation Schools in the German Empire, Switzerland, Denmark, and France, have been contributed by other writers.

" . . . . . gives a record of what the principal nations are doing in the prolongation of school work. It is invaluable as a *corpus* of material from which to estimate the present position of the world—so far as its analogies touch Britain—in 'further education,' as the phrase is."

—*The Outlook*.

"The most comprehensive book on continuation schools that has yet been issued in this country"—*Scottish Review*.

"This book will for many years remain the standard authority upon its subject."—*The Guardian*.

"The whole question is discussed with an elaboration, an insistence on detail, and a wisdom that mark this volume as the most important contribution to educational effort that has yet been made."

—*Contemporary Review*.

"The subject of the work is one that goes to the very heart of national education, and the treatise itself lays bare with a scientific but humane hand the evils that beset our educational system, the waste of life and national energy which that system has been unable in any sufficient degree to check."—*The Spectator*.

"It is a treasure of facts and judicious opinions in the domain of the history and administration of education."—*The Athenæum*.

No. II. THE DEMONSTRATION SCHOOLS RECORD. No. I.

Being Contributions to the Study of Education from the Department of Education in the University of Manchester. By J. J. FINDLAY, M.A., Ph.D. Sarah Fielden Professor of Education. Demy 8vo, pp. viii. 12s. 1s. 6d. net. (Publication No 32, 1908.)

"Professor Findlay and his skilled and experienced collaborators give an interesting account of the uses of the demonstration classes, the nature and scope of the work done in them, and the methods adopted (as well as the underlying principles) in some of the courses of instruction."—*The Athenæum*.

"The book gives an instructive account of the attempts made to correlate the subjects of school instruction, not only with each other, but also with the children's pursuits out of school hours. . . . The problem Professor Findlay has set himself to work out in the Demonstration School is, How far is it possible by working with the children through successive culture epochs of the human race to form within their minds not only a truer conception of human history, but also eventually a deeper comprehension of the underlying purpose and oneness of all human activities?"—*Morning Post*.

MANCHESTER UNIVERSITY PUBLICATIONS.

EDUCATIONAL SERIES.

No. III. THE TEACHING OF HISTORY IN GIRLS' SCHOOLS IN NORTH AND CENTRAL GERMANY. A Report by EVA DODGE, M.A., Gilchrist Student. Demy 8vo, pp. x. 149. 1s. 6d. net.

(Publication No. 34, 1908.)

"We cordially recommend this most workmanlike, and extremely valuable addition to pedagogic literature."—*Education*.

"Miss Dodge has much of interest to say on the limitations and defects of history-teaching in girls' schools, but the real contribution of this book is its revelation of how the history lesson can be made a living thing."—*Glasgow Herald*.

"Gives a clear and detailed account of two well-organised schemes of historical teaching in Germany."—*School World*.

No. IV. THE DEPARTMENT OF EDUCATION IN THE UNIVERSITY OF MANCHESTER, 1890-1911. Demy 8vo, 146 pp. 1s. 6d. net, paper; 2s. 6d. net, cloth.

(Publication No. 58, 1911.)

This book, published in commemoration of the twenty-first anniversary of the education department, includes an article nearly 50 pages long by Prof Sadler on University Training Colleges, their origin, growth and influence, a history by Mr. W. T. Goode of the department of education in the University, a register of past and present students and a record of the publications issued from the department. It is illustrated by photographs of the University and some of the leading persons connected with the education department.

ENGLISH SERIES.

No. I. THE LITERARY PROFESSION IN THE ELIZABETHAN AGE. By PH. SHEAVYN, M.A., D.Lit., Special Lecturer in English Literature and Tutor for Women Students; Warden of the Hall of Residence for Women Students.

A series of brief studies dealing with the conditions amidst which the profession of literature was pursued under Elizabeth and James I. It treats of their relations with patrons, publishers, and reading public, and with various authorities exercising legal control over the press; and discusses the possibility of earning a sufficient livelihood, in this period, by the proceeds of literary work. Demy 8vo, pp. xii. 221. 5s. net.

(Publication No. 49, 1909.)

"... scholarly and illuminating book. It opens a new series in the Manchester University publications, and opens it with distinction. A more elaborately documented or more carefully indexed work need not be desired. The subject is an engrossing one; and, although the author has aimed rather at accuracy and completeness than at the arts of entertainment, the result remains eminently readable."

—*Manchester Guardian*.

"Quite interesting to the general literary reader as well as to the special student for whom, perhaps, it is directly meant. We are always ready to read of the Elizabethan age in authorship, and it loses none of its attractions in Miss Sheavyn's hands."—*Daily Chronicle*.

"A series of studies that will be valuable to everyone interested in the history of literature."—*Daily Mail*.

MANCHESTER UNIVERSITY PUBLICATIONS.

ENGLISH SERIES.

No. II. **BEOWULF**: Edited, with Introduction, Notes, and Glossary, by W. J. SEDGEFIELD, Litt.D., Lecturer in English Language. Demy 8vo, pp. xii. 300. 9s. net. (Publication No. 55, 1910.)

"It is his carefulness in this matter of the text that will win Mr. Sedgefield the chief thanks of students. This record of variants is full and accurate, and the fuller notes which follow the text itself should be very helpful both to the pupil and the expert. In the glossarial index Mr. Sedgefield has accomplished a task hitherto unattempted in England. . . . Mr. Sedgefield's edition of "Beowulf" maintains admirably the standard of scholarliness which Miss Sheavyn's recent volume set her followers in the new English series of Manchester University studies, and we need no longer reproach ourselves with the necessity of going to Germany for a fully edited text of the greatest monument of our early literature. All scholars must be grateful."—*Manchester Guardian*.

"Too often, the philologist and the man of letters find themselves at variance, and it is rare indeed to find the two combined in one personality, but, brief as Mr. Sedgefield's introductory essays necessarily are, they suffice to show that the poem appeals to him in its literary as well as in its linguistic aspect. His criticisms are admirably suggestive, and his notes on the metre, origin, authorship and date are models of clearness and condensation. The Bibliography and Glossary are admirably full."—*Guardian*.

"... His hope that it will find acceptance with a larger public, if not already fulfilled, certainly will be, for the edition is incomparably better than any yet produced in England, and so complete in glossary, bibliography, and other explanatory matter as to stand in no fear of a rival."—*Journal of Education*.

"It is a scholarly piece of work, embodying the results of the latest researches and containing an excellent bibliography! The introduction provides an admirable analysis of the composition and structure of the poem. It is the best English edition available of the oldest extant epic of the English tongue."—*Scotsman*.

"Mr. W. J. Sedgefield's new edition of "Beowulf" is a great step forward in the study of Beowulf in particular and the general popularisation of the study of Anglo-Saxon in general. It may be said that in each of its various sections the introduction, the notes, the glossary, and the appendices, this work is much more complete than any other English edition which has hitherto been published, and it should prove the greatest help to students of this grand old epic poem . . . a work which essentially conforms to the spirit of modern science."

—*Commentator*.

"The prudence and clarity of this edition. . . . Dr. Sedgefield has a refreshing criticism of Beowulf on its purely literary side."

—*The Nation*.

"The notes handle all the chief difficulties frankly."

—*Educational Times*.

"The Bibliography deserves high praise."—*The Athenæum*.

MANCHESTER UNIVERSITY PUBLICATIONS.  
HISTORICAL SERIES.

No. I. **MEDIAEVAL MANCHESTER AND THE BEGINNINGS OF LANCASHIRE.** By JAMES TAIT, M.A., Professor of Ancient and Mediaeval History. Demy 8vo, pp. x. 211. 7s. 6d. net.  
(Publication No. 3, 1904.)

"Patient and enlightened scholarship and a sense of style and proportion have enabled the writer to produce a work at once solid and readable."—*English Historical Review*.

"A welcome addition to the literature of English local history, not merely because it adds much to our knowledge of Manchester and Lancashire, but also because it displays a scientific method of treatment which is rare in this field of study in England."—Dr. Gross in *American Historical Review*.

"La collection ne pouvait débiter plus significativement et plus heureusement que par un ouvrage d'histoire du Moyen Age dû à M. Tait, car l'enseignement médiévisite est un de ceux qui font le plus d'honneur à la jeune Université de Manchester, et c'est à M. le Professeur Tait qu'il faut attribuer une bonne part de ce succès."—*Revue de Synthèse historique*.

No. II. **INITIA OPERUM LATINORUM QUAE SAECULIS XIII., XIV., XV. ATTRIBUUNTUR.** By A. G. LITTLE, M.A., Lecturer in Palaeography. Demy 8vo, pp. xiii. 273 (interleaved). (Out of print.)  
(Publication No. 5, 1904.)

"Whoever has attempted to ascertain the contents of a Mediaeval miscellany in manuscript must often have been annoyed by the occurrence of a blank space where the title of the treatise ought to be. Mr. Little has therefore earned the gratitude of all such persons by making public a collection of some 6,000 incipits, which he arranged in the first instance for his private use, in compiling a catalogue of Franciscan MSS."

—*English Historical Review*.

No. III. **THE OLD COLONIAL SYSTEM.** By GERALD BERKELEY HERTZ, M.A., B.C.L., Lecturer in Constitutional Law. Demy 8vo, pp. xi. 232. 5s. net.  
(Publication No. 7, 1905.)

"Mr. Hertz gives us an elaborate historical study of the old colonial system, which disappeared with the American Revolution. . . . He shows a remarkable knowledge of contemporary literature, and his book may claim to be a true history of popular opinion."—*Spectator*.

"Mr. Hertz's book is one which no student of imperial developments can neglect. It is lucid, fair, thorough, and convincing."

—*Glasgow Herald*.

"Mr. Hertz's 'Old Colonial System' is based on a careful study of contemporary documents, with the result that several points of no small importance are put in a new light . . . it is careful, honest work . . . The story which he tells has its lesson for us."—*The Times*.

"Both the ordinary reader and the academic mind will get benefit from this well-informed and well-written book."—*Scotsman*.

"Mr. Hertz has made excellent use of contemporary literature, and has given us a very valuable and thorough critique. The book is interesting and very well written."—*American Political Science Review*.

"An interesting, valuable, and very necessary exposition of the principles underlying the colonial policy of the eighteenth century."

—*Yorkshire Post*.

MANCHESTER UNIVERSITY PUBLICATIONS.  
HISTORICAL SERIES.

No. IV. STUDIES OF ROMAN IMPERIALISM. By W. T. ARNOLD, M.A. Edited by EDWARD FIDDES, M.A., Lecturer in Ancient History, with Memoir of the Author by Mrs. HUMPHRY WARD and C. E. MONTAGUE. With a Photogravure of W. T. Arnold. Demy 8vo, pp. cxxiii. 281. 7s. 6d. net

(Publication No. 16, 1906.)

"Mrs. Humphry Ward has used all her delicate and subtle art to draw a picture of her beloved brother; and his friend Mr. Montague's account of his middle life is also remarkable for its literary excellence."

—*Athenæum*.

"The memoir . . . tenderly and skilfully written by the 'sister and friend,' tells a story, which well deserved to be told, of a life rich in aspiration, interests, and friendships, and not without its measure of actual achievement."—*Tribune*.

"This geographical sense and his feeling for politics give colour to all he wrote."—*Times*.

"Anyone who desires a general account of the Empire under Augustus which is freshly and clearly written and based on wide reading will find it here."—*Manchester Guardian*.

"Nothing could be better than the sympathetic tribute which Mrs. Humphry Ward pays to her brother, or the analysis of his work and method by his colleague Mr. Montague. The two together have more stuff in them than many big books of recent biography."

—*Westminster Gazette*.

The Memoir may be had separately, price 2s. 6d. net.

No. V. CANON PIETRO CASOLA'S PILGRIMAGE TO JERUSALEM IN THE YEAR 1494. By M. M. NEWETT, B.A., formerly Jones Fellow. Demy 8vo, pp. viii. 427. 7s. 6d. net.

(Publication No. 26, 1907.)

"Tra mezzo ai tanti libri esteri di semplici divulgazione su fatti e figure della storia italiana, questo emerge piacevolmente e si legge volentieri. E diverso di carattere e di trattazione. Esame . . . dalla polvere degli archivi e delle biblioteche qualche cosa che ha un valore fresco ed interessante, un valore storico e un valore umano."

—A.A.B. in the *Archivio Storico Italiano*

"L'introduction se termine par toute une dissertation du plus grand intérêt documentée à l'aide des archives vénitiennes, sur le caractère commercial des pèlerinages, dont les armateurs de Venise assumèrent, jusqu'au XVII<sup>e</sup> siècle l'entreprise."

—J.B. in the *Revue de Synthèse historique*

"Miss Newett has performed her task admirably, preserving much of the racy humour and shrewd phrasing which mark the original, and adding, in the introduction, a general treatise on the Venetian pilgrim industry, and in the notes copious illustrations of the text."

—Horatio Brown in the *English Historical Review*.

"Miss Newett's introduction is an admirable bit of work. She has studied carefully what the archives of Venice have to say about pilgrim ships and shipping laws, and her pages are a mine of information on such subjects."—Dr. Thomas Lindsay in the *Scottish Historical Review*.

"This is a deeply interesting record, not merely of a Syrian pilgrimage, but of Mediterranean life and of the experiences of an intelligent Italian gentleman at the close of the Middle Ages—two years after the discovery of America. It would not be easy to find a more graphic picture, in old days, of a voyage from Venice to the Levant."

—*American Historical Review*.

**MANCHESTER UNIVERSITY PUBLICATIONS.  
HISTORICAL SERIES.**

No. VI HISTORICAL ESSAYS. Edited by T. F. TOUT, M.A.,  
Professor of Mediæval and Modern History, and JAMES TAIT, M.A.,  
Professor of Ancient and Mediæval History. Demy 8vo, pp. xv. 557.  
6s. net. Reissue of the Edition of 1902 with index and New Preface.  
(Publication No. 27, 1907.)

"Diese zwanzig chronologisch geordneten Aufsätze heissen in der Vorrede der Herausgeber *Festschrift*, behandeln zur Hälfte ausser-englische Themata, benutzen reichlich festländische Literatur und verraten überall neben weiten Ausblicken eine methodische Schulung die der dortigen Facultät hohe Ehre macht."—Professor Liebermann in *Deutsche Literaturzeitung*.

"Imperial history, local history, ecclesiastical history, economic history and the methods of historical teaching—all these are in one way or another touched upon by scholars who have collaborated in this volume. Men and women alike have devoted their time and pains to working out problems of importance and often of no slight difficulty. The result is one of which the university and city may be justly proud."—The late Professor York Powell in the *Manchester Guardian*.

"Esso contiene venti lavori storici dettati, quattro da professori e sedici da licenziati del Collegio, e sono tutto scritti appositamente e condotti secondo le più rigorose norme della critica e su documenti."—R. Predelli in *Nuovo Archivio Veneto*.

"Le variété des sujets et l'érudition avec laquelle ils sont traités font grand honneur à la manière dont l'histoire est enseignée à Owens College."  
—*Revue Historique*.

"Par nature, c'est un recueil savant, qui témoigne du respect et de l'émulation que sait exercer pour les études historiques la jeune et déjà célèbre université."—*Revue d'histoire ecclésiastique* (Louvain).

"All these essays reach a high level; they avoid the besetting sin of most of our present historical writing, which consists of serving up a hash of what other historians have written flavoured with an original spice of error. . . . They are all based on original research and written by specialists."—Professor A. F. Pollard in the *English Historical Review*.

"Sie bilden einen schönen Beweis für die rationelle Art, mit der dort dieses Studium betrieben wird."—Professor O. Weber in *Historische Zeitschrift*.

The index can be purchased separately, price 6d. net.

No. VII. STUDIES SUPPLEMENTARY TO STUBBS' CONSTITUTIONAL HISTORY. Vol. i. By CH. PETIT-DUTAILLIS, Litt.D., rector of the University of Grenoble. Translated from the French by W. E. RHODES, M.A., and edited by Prof. JAMES TAIT, M.A.  
Demy 8vo, pp. xiv. 152. 4s. net.

(Publication No. 38, 1908. Second Edition, 1911.)

"The volume will be virtually indispensable to teachers and students of history."—*Athenæum*.

"This task has been carefully and well performed, under the supervision of Professor Tait, who has written a short but adequate introduction. This little book, ought, without delay, to be added to every public or private library that contains a copy of the classic work to which it forms an indispensable supplement."

—Dr. W. S. McKechnie in the *Scottish Historical Review*.

MANCHESTER UNIVERSITY PUBLICATIONS.  
HISTORICAL SERIES.

STUDIES SUPPLEMENTARY TO STUBBS' CONSTITUTIONAL HISTORY (Continued).

"These supplementary studies impress one as a discreet and learned attempt to safeguard a public, which is likely to learn all that it will know of a great subject from a single book, against the shortcomings of that book."—Professor A. B. White in the *American Historical Review*.

"C'est un complément indispensable de l'ouvrage de Stubbs, et l'on saura gré à l'Université de Manchester d'avoir pris l'initiative de cette publication."—M. Charles Bémont in *Revue Historique*.

"Ce sont des modèles de critique ingénieuse et sobre, une mise au point remarquable des questions les plus importantes traitées jadis par Stubbs."—M. Louis Halphen in *Revue de Synthèse historique*.

"Zu der englischen Übersetzung dieser Excursus, durch einen verdienten jüngeren Historiker, die durchaus leicht wie Originalstil fließt, hat Tait die Vorrede geliefert und manche Note, die noch die Literatur von 1908 berücksichtigt. Die historische Schule der Universität, Manchester, an Rührigkeit und strenger Methode von keiner in England übertroffen, bietet mit der Veröffentlichung der werthvollen Arbeit des Franzosen ein treffliches Lehrmittel."—Professor F. Jæbermann, in *Deutsche Literaturzeitung*.

No. VIII. MALARIA AND GREEK HISTORY. By W. H. S. JONES, M.A. To which is added the History of Greek Therapeutics and the Malaria Theory by E. T. WITHINGTON, M.A., M.B. Demy 8vo, pp. xii. 176. 5s. net. (Publication No 43, 1909.)

"Mr. W. H. S. Jones is to be congratulated on the success with which he has conducted what may be described as a pioneering expedition into a practically unexplored field of history . . . the publishers are to be congratulated on the admirable way in which the book has been turned out—a joy to handle and to read."—*Manchester Guardian*.

"This interesting volume is an endeavour to show that the decline of the Greeks as a people for several centuries before and after the Christian era was largely due to the prevalence of malaria in its various forms."—*Glasgow Herald*.

"[The author] . . . has amassed a considerable store of valuable information from the Greek classics and other sources which will prove extremely useful to all who are interested in his theory."

—*Birmingham Daily Post*.

No. IX. HANES GRUFFYDD AP CYNAN. The Welsh text with translation, introduction, and notes by ARTHUR JONES, M.A., Jones Fellow in History. Demy 8vo, pp. viii. 204. 6s. net.

(Publication No. 50, 1910.)

"No Welsh historian of the future can afford to neglect this scholarly attempt to give the work of Griffith ap Cynan a true historical setting. The introduction is an ideally well-balanced estimate of a singularly quaint and beautiful piece of history."—*Glasgow Herald*.

"The Editor has prefaced his text with a comprehensive and nearly always convincing introduction of more than 100 pages, besides copious notes. Nearly every page of both contains matter of Irish history, sometimes really new, since taken from the document never deeply studied before, and always valuable from the new light thrown by the collation of independent, 'international' testimonies. . . . It will at once be seen that we have here a document of the first interest to ourselves; the University and the Editor have put us in their debt for a valuable contribution to our history."—*Freeman's Journal*.



• **MANCHESTER UNIVERSITY PUBLICATIONS  
HISTORICAL SERIES.**

"Mr. Jones prints the Welsh text in a scholarly recension, and accompanies it page by page with a faithful version into English, explains its obscurities and personal and local allusions in notes always concise and to the point, and brings it in with an interesting introduction, which treats fully of the transmission of the text, of its value as an historical document, and of its relation to other remaining original authorities for the history of the Norman Conquest."—*Scotsman*.

"Mr. Jones's enterprise is the result of the happy union in the University of Celtic and of historical studies. . . The textual editing, the annotations, and the translation have all been admirably done, and the work is a credit alike to the author, the University, and to the Press."—*Manchester Guardian*.

"Hearty thanks are due for a most useful and satisfactory edition."

—*Archæologia Cambrensis*.

No. X. **THE CIVIL WAR IN LANCASHIRE.** By ERNEST BROXAP, M.A. Demy 8vo, pp. xv. 226. 7s. 6d. net.

(Publication No. 51, 1910.)

"By a judicious use of it he has produced an eminently readable and informing work. . . The University of Manchester, which, but for the pressure of the political situation, would have been founded in 1642, is to be congratulated upon its choice of an historian of the war in Lancashire."—*Athenæum*.

"Mr. Broxap's monograph must be welcomed as the most important of those hitherto given to history to illuminate the county aspect of the Civil War. . . . The whole book is very carefully revised and accurate in its details, full and satisfactory, and the order in which the story is told, is excellent. The index is also sufficient, and the whole study is amply annotated. Altogether, both the author and the Manchester University Press are to be thoroughly congratulated upon the volume."—*Morning Post*.

"It is clear that Mr. Broxap has minutely studied all available original materials and that he uses them with care and discrimination. . . the highest praise that can be given to the author of a historical monograph is that he set out to produce a book that was wanted, does that extremely well, and does nothing else, and to this praise Mr. Broxap is fully entitled."—*Westminster Gazette*.

"The author has carefully studied authorities, and this first complete and separate account of a momentous episode in the Civil War is marked by a painstaking regard to accuracy of detail, and also by a judgment that is invariably fair and unbiassed as well as careful and acute."

—*Scotsman*.

No. XI. **A BIOGRAPHY OF THOMAS DEACON, THE MANCHESTER NON-JUROR.** By Henry Broxap, M.A. Demy 8vo, pp. xix. 215, 2 plates. 7s. 6d. net. (Publication No. 59, 1911.)

"It has the signal merit, as history, of dealing with real historical questions and bringing research and historical methods to bear upon them. The author's motive has never been to concoct a book for the circulating library, but to illustrate by a single instance the strong and noble characteristics of a sect which Johnson and Macaulay despised."—*Manchester Guardian*.

"Deacon was a Manchester man; Mr. Broxap is a Manchester man; and the book is a work of independent and original research, which adds many interesting particulars to the knowledge of Deacon and of the non-jurors hitherto available to students."—*Scotsman*.

"The materials for a biography of Thomas Deacon are not too plentiful, but Mr. Broxap has made the best possible use of the available sources, and weaves into his story many interesting glimpses of the social and religious life of the period."—*Glasgow Herald*.

**MANCHESTER UNIVERSITY PUBLICATIONS.**

**HISTORICAL SERIES.**

**THE EJECTED OF 1662:** Their Predecessors and Successors in Cumberland and Westmorland. By B. NIGHTINGALE, M.A.

[*In the Press.*]

**GERMANY IN THE NINETEENTH CENTURY.** Lectures by J. HOLLAND ROSE, Litt.D., C. H. HERFORD, Litt.D., F. C. K. GONNER, M.A., M. E. SADLER, M.A., LL.D.

[*In the Press.*]

**DOCUMENTS RELATING TO IRELAND UNDER THE COMMONWEALTH.** By ROBERT DUNLOP, M.A., Lecturer on Irish History. In 2 volumes, demy 8vo.

This work will consist of a series of unpublished documents relating to the History of Ireland from 1651 to 1659, arranged, modernized, and edited, with introduction, notes, etc., by Mr. DUNLOP.

[*In Preparation.*]

**MEDICAL SERIES.**

No. I. **SKETCHES OF THE LIVES AND WORK OF THE HONORARY MEDICAL STAFF OF THE ROYAL INFIRMARY.** From its foundation in 1752 to 1830, when it became the Royal Infirmary. By EDWARD MANSFIELD BROCKBANK, M.D., M.R.C.P. Crown 4to. (illustrated), pp. vii. 311. 15s. net.

(Publication No. 1, 1904.)

"Dr. Brockbank's is a book of varied interest. It also deserves a welcome as one of the earliest of the 'Publications of the University of Manchester.'"—*Manchester Guardian*.

No. II. **PRACTICAL PRESCRIBING AND DISPENSING.** For Medical Students. By WILLIAM KIRKBY, sometime Lecturer in Pharmacognosy in the Owens College, Manchester. Crown 8vo, pp. iv. 194. 5s. net.

(Publication No. 2, 1904, Second Edition, 1906.)

"The whole of the matter bears the impress of that technical skill and thoroughness with which Mr. Kirkby's name must invariably be associated, and the book must be welcomed as one of the most useful recent additions to the working library of prescribers and dispensers."

—*Pharmaceutical Journal*.

"Thoroughly practical text-books on the subject are so rare, that we welcome with pleasure Mr. William Kirkby's 'Practical Prescribing and Dispensing.' The book is written by a pharmacist expressly for medical students, and the author has been most happy in conceiving its scope and arrangement."—*British Medical Journal*.

No. III. **HANDBOOK OF SURGICAL ANATOMY.** By G. A. WRIGHT, B.A., M.B. (Oxon.), F.R.C.S., Professor of Systematic Surgery, and C. H. PRESTON, M.D., F.R.C.S., L.D.S., Lecturer on Dental Anatomy; Assistant Dental Surgeon to the Victoria Dental Hospital of Manchester. Crown 8vo, pp. ix. 205. 5s. Second edition.

(Publication No. 6, 1905.)

"Dr. Wright and Dr. Preston have produced a concise and very readable little handbook of surgical applied anatomy. . . . The subject matter of the book is well arranged and the marginal notes in bold type facilitate reference to any desired point."—*Lancet*.

**MANCHESTER UNIVERSITY PUBLICATIONS.**

**MEDICAL SERIES.**

No. IV. A COURSE OF INSTRUCTION IN OPERATIVE SURGERY in the University of Manchester. By WILLIAM THORBURN, M.D., B.S. (Lond.), F.R.C.S., Lecturer in Operative Surgery. Crown 8vo, pp. 75 (interleaved), 26 Figures in the Text. 2s. 6d. net. (Publication No. 11, 1906.)

"This little book gives the junior student all that he wants, and nothing that he does not want. Its size is handy, and altogether for its purpose it is excellent."—*University Review*.

No. V. A HANDBOOK OF LEGAL MEDICINE. By W. SELLERS, M.D. (London), of the Middle Temple, and Northern Circuit, Barrister-at-law. With 7 Illustrations. Crown 8vo, pp. vii. 233. 7s. 6d. net. (Publication No. 14, 1906.)

"This is quite one of the best books of the kind we have come across."—*Law Times*.

No. VI. A CATALOGUE OF THE PATHOLOGICAL MUSEUM OF THE UNIVERSITY OF MANCHESTER. Edited by J. LORRAIN SMITH, M.A., M.D. (Edin.), Professor of Pathology. Crown 4to, 1260 pp. 7s. 6d. net. (Publication No. 15, 1906.)

"The catalogue compares very favourably with others of a similar character, and, apart from its value for teaching purposes in an important medical school such as that of the University of Manchester, it is capable of being of great assistance to others as a work of reference."

—*Edinburgh Medical Journal*

"In conclusion we need only say that Professor Lorrain Smith has performed the most essential part of his task—the description of the specimens—excellently and an honourable mention must be made of the book as a publication."—*British Medical Journal*.

No. VII. HANDBOOK OF DISEASES OF THE HEART. By GRAHAM STEELL, M.D., F.R.C.P., Professor of Medicine, and Physician to the Manchester Royal Infirmary. Crown 8vo, pp. xii. 389, 11 plates (5 in colours), and 100 illustrations in the text. 7s. 6d. net. (Publication No. 20, 1906.)

"It more truly reflects modern ideas of heart disease than any book we are acquainted with, and therefore may be heartily recommended to our readers."—*Treatment*.

"We regard this volume as an extremely useful guide to the study of diseases of the heart, and consider that no better introduction to the subject could possibly have been written."

—*Medical Times and Hospital Gazette*.

"We can cordially recommend Dr. Steell's book as giving an excellent and thoroughly practical account of the subject of which it treats."

—*Edinburgh Medical Review*.

No. VIII. JULIUS DRESCHFEL, IN MEMORIAM. Medical Studies by his colleagues and pupils at the Manchester University and the Royal Infirmary. Imperial 8vo, pp. vi. 246. With a Photogravure and 43 Plates. 10s. 6d. net. (Publication No. 35, 1908.)

"A worthy memorial of one who left no small mark upon the study of clinical pathology in this country."—*British Medical Journal*.

"The papers which compose the bulk of the volume have been reprinted from the 'Manchester Chronicle,' vol. xiv, and they are of both interest and permanent value."—*Scottish Medical Journal*.

"The editor, Dr. Brockbank, can be congratulated upon editing a volume that will fitly perpetuate the memory of his eminent colleague."

—*Medical Review*.

MANCHESTER UNIVERSITY PUBLICATIONS.

MEDICAL SERIES.

No. IX. HANDBOOK OF INFECTIOUS DISEASES. By R. W. MARSDEN, M.D. Crown 8vo, pp. vi. 296. 5s. net.

(Publication No. 39, 1908.)

"This book aims at giving a practical account of the various infectious diseases, suitable for ready reference in everyday work, and the author has, on the whole, succeeded admirably in his attempt."—*The Lancet*.

"Throughout the book the information given seems thoroughly adequate, and especial attention is paid to diagnosis."

—*Scottish Medical Journal*.

"The subject matter is well arranged and easy of reference."

—*The Medical Officer*.

No. X. LECTURES ON THE PATHOLOGY OF CANCER. By CHARLES POWELL WHITE, M.A., M.D., F.R.C.S. Imperial 8vo, pp. x. 83, 33 plates. 3s. 6d. net. (Publication No. 42, 1908)

"The volume is a model of scientific self-restraint. In four chapters the author covers in simple language much that is of main interest in the present phase of investigation of cancer . . .

"The volume . . . is well illustrated with statistical charts and photomicrographs, and its perusal must prove profitable to all who wish to be brought up-to-date in the biology of cancer."—*Nature*.

"Full of scholarly information and illustrated with a number of excellent black-and-white plates."—*Medical Press*.

"These lectures give a short résumé of recent work on the subject in an easily assimilable form."—*St. Bartholomew's Hospital Journal*.

No. XI. SEMMELWEIS: HIS LIFE AND HIS DOCTRINE. A chapter in the History of Medicine. By Sir WILLIAM J. SINCLAIR, M.A., M.D., Professor of Obstetrics and Gynaecology in the University of Manchester. Imperial 8vo, pp. x. 369, 2 plates. 7s. 6d. net. (Publication No. 46, 1909.)

"Semmelweis has found a worthy biographer who has made a noteworthy contribution to medical literature, and whose understanding of the work and sympathy for the trial of his subject are obvious."

—*Dublin Journal of Medical Science*.

"Das wahrhaft vornehm geschriebene Buch des auch bei uns in Deutschland hochverehrten englischen Kollegen spricht für sich selbst. Es ist berufen, in dem Vaterlande Lister's auch dem grossen Märtyrer Semmelweis Gerechtigkeit zuteil werfen zu lassen."

—*Zentralblatt für Gynäkologie*.

"There should be a wide public, lay as well as medical, for a book as full of historical, scientific and human interest as this 'Life of Semmelweis.' . . . Sir William Sinclair's book is of the greatest interest, and we are glad to welcome an adequate English appreciation of Semmelweis, who certainly ranks among the 'heroes of medicine.'"

—*Nature*.

"It is a book all obstetricians and research men should read."

—*Scottish Medical Journal*.

"A most instructive and interesting biography of the discoverer of the cause of puerperal fever. . . . The book is well printed and bound."

—*Medical Review*.

MANCHESTER UNIVERSITY PUBLICATIONS.

MEDICAL SERIES.

No. XII. MODERN PROBLEMS IN PSYCHIATRY. By E. LUGARO, Professor of Nervous and Mental Diseases in the University of Modena. Translated from the Italian by DAVID ORR, M.D., Assistant Medical Officer and Pathologist to the County Asylum, Prestwich; and R. G. ROWS, M.D., Assistant Medical Officer and Pathologist to the County Asylum, Lancaster. With an introduction by T. S. CLOUSTON, M.D., Physician Superintendent, Royal Asylum, Morningside, and Lecturer on Mental Diseases in Edinburgh University. Imperial 8vo, pp. viii. 305, 8 plates. 7s. 6d. net. (Publication No. 47, 1909.)

"Professor Lugaro is to be congratulated upon the masterly and judicious survey of his subject which he has given to the world in this work. Not only have we a succinct and clear exposition of the present state of our knowledge, but we are confronted with a tale of the inexhaustible work that lies before us."—*Lancet*.

"The work should be on the shelf of every pathologist and asylum physician; it is thoughtful, suggestive and well written. The translation also is excellent."—*Nature*.

"The book is a very distinct addition to the literature of psychiatry, and one which will well repay careful study."

—*Californian Medical Journal*.

"The whole book is suggestive in the highest degree, and well worthy of careful study. Dr. David Orr and Dr. R. G. Rows, the translators, are to be heartily congratulated on the manner in which they have rendered the original into terse and idiomatic English."—*Athenæum*.

No. XIII. FEEBLEMINDEDNESS IN CHILDREN OF SCHOOL AGE. By G. PAGET LAPAGE, M.D., M.R.C.P. With an Appendix on Treatment and Training by MARY DENDY, M.A. Crown 8vo, pp. xvi. 359, 12 Plates. 5s. net. (Publication No. 57, 1911.)

"There is indeed much of practical interest in the book, which is well printed at the Manchester University Press and is admirably illustrated and got up."—*British Medical Journal*.

"Dr. Lapage is evidently thoroughly conversant with his subject, which he has discussed in such a manner as to be readily grasped by those interested, each chapter ending with a summary of the chief points discussed. Taken as a whole, we regard this book as a valuable aid to the treatment and management of the feeble-minded."—*The Asylum News*.

"It will be thus seen that the author covers much ground and it is surprising how much interesting information is included. Taken as a whole the book is excellent and will, we feel sure, meet with a ready sale. . . . We cordially welcome this volume as an admirable contribution to the literature of the subject."—*Medical Times*

"We consider these objects have been achieved. The book is a clear and accurate short account of the characteristics of feeble-minded children, which cannot fail to be of service to those for whom it is intended. . . . The Appendix contributed by Miss Dendy is, as we should expect, clear and practical, and is a valuable addition to the book."

—*British Journal of Children's Diseases*.

"His book is eminently practical, and is written in such simple language as any layman may understand."—*The Times Literary Supplement*.

MANCHESTER UNIVERSITY PUBLICATIONS.

PHYSICAL SERIES.

- No. I. THE PHYSICAL LABORATORIES OF THE UNIVERSITY OF MANCHESTER. A record of 25 years' work. Demy 8vo, pp. viii. 142, with a Photogravure, 10 Plates, and 4 Plans. 5s. net. (Publication No. 13, 1906.)

This volume contains an illustrated description of the Physical, Electrical Engineering, and Electro-Chemistry Laboratories of the Manchester University, also a complete Biographical and Bibliographical Record of those who have worked in the Physics Department of the University during the past 25 years.

"The book is excellently got up, and contains a description of the department of physics and its equipment, a short biographical sketch of the Professor with a list of his scientific writings and a well-executed portrait and a record of the career of students and others who have passed through Dr. Schuster's hands. Alumni of Owens will welcome the volume as an interesting link with their alma mater."—*Glasgow Herald*.

"This interesting and valuable contribution to the history of the Manchester University also contains several illustrations, and forms the first of the 'physical series' of the publications of the University of Manchester."—*The Times*.

"It is a memorial of which any man would be justly proud, and the University of which he is both an alumnus and a professor may well share that pride."—*Manchester Guardian*.

- No. II. LABORATORY EXERCISES IN PHYSICAL CHEMISTRY.  
By J. N. PRING, D.Sc. [In the Press.]

PUBLIC HEALTH SERIES.

- No. I. ARCHIVES OF THE PUBLIC HEALTH LABORATORY OF THE UNIVERSITY OF MANCHESTER. Edited by A. SHERIDAN DELÉPINE, M.Sc., M.B., Ch.M., Director of the Laboratory and Proctor Professor of Comparative Pathology and Bacteriology. Crown 4to. pp. iv. 451. £1. 1s. net. (Publication No. 12, 1906.)

"The University of Manchester has taken the important and highly commendable step of commencing the publication of the archives of its Public Health Laboratory, and has issued, under the able and judicious editorship of Professor Sheridan Delépine, the first volume of a series that promises to be of no small interest and value alike to members of the medical profession and to those of the laity. . . . Original communications bearing upon diseases which are prevalent in the districts surrounding Manchester, or dealing with food and water-supplies, air, disposal of refuse, sterilisation and disinfection and kindred subjects, will be published in future volumes; and it is manifest that these, as they successively appear, will form a constantly increasing body of trustworthy information upon subjects which are not only of the highest interest to the profession but of supreme importance to the public."

—*The Lancet*.

**MANCHESTER UNIVERSITY PUBLICATIONS.  
THEOLOGICAL SERIES.**

No. I. INAUGURAL LECTURES delivered during the Session 1904-5, by the Professors and Lecturers of the Faculty of Theology, viz. :—

Prof. T. F. Tout, M.A.; Prof. A. S. Peake, B.D.; Prof. H. W. Hogg, M.A.; Prof. T. W. Rhys Davids, LL.D.; Rev. W. F. Adeney, D.D.; Rev. A. Gordon, M.A.; Rev. L. Hassé, B.D.; Rev. Canon E. L. Hicks, M.A.; Rev. H. D. Lockett, M.A.; Rev. R. Mackintosh, D.D.; Rev. J. T. Marshall, D.D.; Rev. J. H. Moulton, D.Litt.

Edited by A. S. PEAKE, B.D., Dean of the Faculty.

Demy 8vo, pp. xi. 296. 7s. 6d. net. (Publication No. 9, 1905.)

"The lectures, while scholarly, are at the same time popular, and will be found interesting and instructive by those who are not theologians. . . . The entire series is excellent, and the volume deserves a wide circulation."—*Scotsman*.

"The lectures themselves give a valuable conspectus of the present position of Theological Research. . . . They are, of course, not addressed to experts, but they are exceedingly valuable, even when allowance is made for their more or less popular form."—*Examiner*.

"This is a most interesting and valuable book, the appearance of which at the present moment is singularly significant. . . . But it is impossible in a brief review to indicate all the treasures of this rich volume, to read which carefully is to be introduced to the varied wealth of modern Biblical scholarship."—*Baptist*.

**LECTURES.**

- No. I. GARDEN CITIES (Warburton Lecture). By RALPH NEVILLE, K.C. 6d. net. (Lecture No. 1, 1905.)
- No. II. THE BANK OF ENGLAND AND THE STATE (A Lecture). By Sir FELIX SCHUSTER. 6d. net. (Lecture No. 2, 1905.)
- No. III. BEARING AND IMPORTANCE OF COMMERCIAL TREATIES IN THE TWENTIETH CENTURY. By Sir THOMAS BARCLAY. 6d. net. (Lecture No. 3, 1906.)
- No. IV. THE SCIENCE OF LANGUAGE AND THE STUDY OF THE GREEK TESTAMENT (A Lecture). By JAMES HOPE MOULTON, M.A., Litt.D. 6d. net. (Lecture No. 4, 1906.)
- No. V. THE GENERAL MEDICAL COUNCIL: ITS POWERS AND ITS WORK (A Lecture). By DONALD MACALISTER, M.A., M.D., B.Sc., D.C.L., LL.D. 6d. net. (Lecture No. 5, 1906.)
- No. VI. THE CONTRASTS IN DANTE (A Lecture). By the Hon. WILLIAM WARREN VERNON, M.A. 6d. net. (Lecture No. 6, 1906.)
- No. VII. THE PRESERVATION OF PLACES OF INTEREST OR BEAUTY (A Lecture). By Sir ROBERT HUNTER. 6d. net. (Lecture No. 7, 1907.)
- No. VIII. ON THE LIGHT THROWN BY RECENT INVESTIGATIONS ON ELECTRICITY ON THE RELATION BETWEEN MATTER AND ETHER (Adams Lecture). By J. J. THOMSON, D.Sc., F.R.S. 6d. net. (Lecture No. 8, 1908.)
- No. IX. HOSPITALS, MEDICAL SCIENCE, AND PUBLIC HEALTH (A Lecture). By Sir CLIFFORD ALLBUTT, K.C.B., M.D. (Cantab.). 6d. net. (Lecture No. 9, 1908.)

## SHERRATT & HUGHES

### MANCHESTER UNIVERSITY PUBLICATIONS LECTURES.

- No. X. ENGLISH POETRY AND GERMAN PHILOSOPHY IN THE AGE OF WORDSWORTH (Adamson Lecture). By A. C. BRADLEY, Litt.D. 6d. net. (Lecture No. 10, 1909.)
- No. XI. THE EVOLUTION OF SURGERY. By WILLIAM THORBURN, F.R.C.S. 6d. net. (Lecture No. 11, 1910.)
- No. XII. LEIBNIZ AS A POLITICIAN. By A. W. WARD, Litt.D., F.B.A. 6d. net. (Lecture No. 12, 1911.)
- CALENDAR OF THE VICTORIA UNIVERSITY OF MANCHESTER. Session 1904-5. Demy 8vo, 1100 pp. 3s. net. (Publication No. 17.)
- CALENDAR OF THE VICTORIA UNIVERSITY OF MANCHESTER. Session 1905-6. Demy 8vo, 1200 pp. 3s. net. (Publication No. 18.)
- CALENDAR OF THE VICTORIA UNIVERSITY OF MANCHESTER. Session 1906-7. Demy 8vo, 1300 pp. 3s. net. (Publication No. 19.)
- CALENDAR OF THE VICTORIA UNIVERSITY OF MANCHESTER. Session 1907-8. Demy 8vo, 1400 pp. 3s. net. (Publication No. 28.)
- CALENDAR OF THE VICTORIA UNIVERSITY OF MANCHESTER. Session 1908-9. Demy 8vo, 1460 pp. 3s. net. (Publication No. 37.)
- CALENDAR OF THE VICTORIA UNIVERSITY OF MANCHESTER. Session 1909-10. Demy 8vo. 1470 pp. 3s. net. (Publication No. 48.)
- CALENDAR OF THE VICTORIA UNIVERSITY OF MANCHESTER. Session 1910-11. Demy 8vo, 1550 pp. 3s. net. (Publication No. 56.)
- CALENDAR OF THE VICTORIA UNIVERSITY OF MANCHESTER. Session 1911-12. Demy 8vo, 1570 pp. 3s. net. (Publication No. 60.)

THE REGISTER OF GRADUATES OF THE UNIVERSITY OF MANCHESTER UP TO JULY 1908. 2s. 6d. net, cloth 3s. 6d. net. (Publication No. 36.)

### Publications of the John Rylands Library Issued at the University Press.

- THE JOHN RYLANDS LIBRARY: Memorial of the Inauguration, 6th October, 1899. [Printed for private circulation.] 8vo, pp. 24.
- CATALOGUE OF THE MANUSCRIPTS, BOOKS, AND BOOK-BINDINGS EXHIBITED AT THE OPENING OF THE JOHN RYLANDS LIBRARY, MANCHESTER, 6th October, 1899. 8vo, pp. 42. [Out of Print.]
- CATALOGUE OF THE PRINTED BOOKS AND MANUSCRIPTS IN THE JOHN RYLANDS LIBRARY, MANCHESTER. 1899. 3 vols. 4to. 31s. 6d. net.
- CATALOGUE OF BOOKS IN THE JOHN RYLANDS LIBRARY . . . PRINTED IN ENGLAND, SCOTLAND, AND IRELAND, AND OF BOOKS IN ENGLISH PRINTED ABROAD, TO THE END OF THE YEAR 1640. 1895. 4to, pp. iii. 147. 10s. 6d. net.
- THE ENGLISH BIBLE IN THE JOHN RYLANDS LIBRARY, 1525 to 1640. With 26 facsimiles and 39 engravings. [Printed for private circulation.] 1899. Folio, pp. xvi. 275. In levant Morocco, 5 guineas net.



- THE JOHN RYLANDS LIBRARY. A Brief Description of the Building and its Contents, with a Descriptive List of the Works Exhibited in the Main Library. [Printed for private circulation.] July 1902. 8vo, pp. 48. [Out of Print.]
- JOHN RYLANDS LIBRARY. . . . JOHANN GUTENBERG AND THE DAWN OF TYPOGRAPHY IN GERMANY. Lecture by the Librarian, 14th October, 1903. (Synopsis of Lecture.—List of works exhibited . . . to illustrate the work of the first typographers in Germany. . . —A selection from the works in the John Rylands Library bearing upon the subject.) 1903. 8vo, pp. 15. [Out of Print.]
- THE JOHN RYLANDS LIBRARY: THE MOVEMENT OF OLD TESTAMENT SCHOLARSHIP IN THE NINETEENTH CENTURY. [Synopsis of] a lecture by Prof. A. S. Peake, . . . 11th November, 1903—Some leading dates in Pentateuch criticism, 1903. 8vo, pp. 8. [Out of Print.]
- WORKS UPON THE STUDY OF GREEK AND LATIN PALAEOGRAPHY AND DIPLOMATIC IN THE JOHN RYLANDS LIBRARY. . . . Reprinted from the "Quarterly Bulletin of the John Rylands Library." 1903. 4to, pp. 16. [Out of Print.]
- THE JOHN RYLANDS LIBRARY. . . . Catalogue of an Exhibition of Bibles illustrating the history of the English versions from Wiclif to the present time. Including the personal copies of Queen Elizabeth, General Gordon, and Elizabeth Fry. 1904. 8vo, pp. 32. [Out of Print.]
- THE JOHN RYLANDS LIBRARY. . . . Catalogue of the Manuscripts and Printed Books exhibited on the occasion of the visit of the National Council of the Evangelical Free Churches. 1905. 8vo, pp. 38. [Out of Print.]
- THE JOHN RYLANDS LIBRARY. . . . A brief historical description of the Library and its contents, with Catalogue of the selection of early printed Greek and Latin Classics exhibited on the occasion of the visit of the Classical Association. . . . 1906. 8vo, pp. 89. Illus. 1s. net.
- Full bibliographical descriptions of the first printed editions of the fifty principal Greek and Latin writers; of the first printed Greek classic ("Batrachomyomachia," 1474) the only known copy is described.
- THE JOHN RYLANDS LIBRARY. . . . Catalogue of an Exhibition of Bibles illustrating the history of the English versions from Wiclif to the present time, including the personal copies of Queen Elizabeth, Elizabeth Fry, and others. 1907. 8vo, pp. vii. 5s. [Out of Print.]
- THE JOHN RYLANDS LIBRARY. . . . Catalogue of the selection of Books and Broad-sides illustrating the early history of printing exhibited on the occasion of the visit of the Federation of Master Printers and Allied Trades. 1907. 8vo, pp. vi. 34. [Out of Print.]
- THE JOHN RYLANDS LIBRARY. . . . A brief historical description of the Library and its contents. 1907. 8vo, pp. 53. Illus. [Out of Print.]
- THE JOHN RYLANDS LIBRARY. . . . Catalogue of an Exhibition of Illuminated Manuscripts, principally Biblical and Liturgical, on the occasion of the Church Congress. 1908. 8vo, pp. vi. 82. 6d. net.
- THE JOHN RYLANDS LIBRARY. . . . Catalogue of an Exhibition of original editions of the principal works of John Milton arranged in celebration of the tercentenary of his birth. 1908. 8vo, pp. 24. 6d. net.

**THE JOHN RYLANDS LIBRARY.** . . . Catalogue of an Exhibition of the works of Dante Alighieri [with list of a selection of works on the study of Dante]. 1909. 8vo. pp. xii. 55. 6d. *net*.

**THE JOHN RYLANDS LIBRARY.** . . . Catalogue of an Exhibition of original editions of the principal English Classics [with list of works for the study of English Literature]. 1910. 8vo, pp. xvi. 86. 6d. *net*.

**A CLASSIFIED CATALOGUE OF THE WORKS ON ARCHITECTURE AND THE ALLIED ARTS, IN THE PRINCIPAL LIBRARIES OF MANCHESTER AND SALFORD,** with Alphabetical author list and subject index. Edited for the Architectural Committee of Manchester by Henry Guppy and Guthrie Vine. 1909. 8vo, pp. xxv. 310. 3s. 6d. *net*, or interleaved 4s. 6d. *net*.

**THE JOHN RYLANDS LIBRARY.** . . . An analytical catalogue of the contents of the two editions of "An English Garner," compiled by Edward Arber (1877-97), and rearranged under the editorship of Thomas Seccombe (1903-04). 1909. 8vo, pp. viii. 221. 1s. *net*.

**BULLETIN OF THE JOHN RYLANDS LIBRARY.** Vol. i. (1903-08). 4to, pp. 468. 6s. *net*.

**AN ACCOUNT OF A COPY FROM THE FIFTEENTH CENTURY** [now in the John Rylands Library] of a map of the world engraved on metal, which is preserved in Cardinal Stephen Borgia's Museum at Velletri. By A. E. Nordenskiöld (copied from "Ymer," 1891). *Stockholm*, 1891. 4to, pp. 29, and facsimile of map. 7s. 6d. *net*.

**CATALOGUE OF THE COPTIC MANUSCRIPTS IN THE JOHN RYLANDS LIBRARY.** By W. E. Crum. 1909. 4to, pp. xii. 273. 12 plates of facsimiles, in collotype. 1 guinea *net*.

Many of the texts are reproduced in *extenso*. The collection includes a series of private letters considerably older than any in Coptic hitherto known, in addition to many MSS. of great theological and historical interest.

**CATALOGUE OF THE DEMOTIC PAPYRI IN THE JOHN RYLANDS LIBRARY.** With facsimiles and complete translations. By F. Ll. Griffith. 1909. 3 vols. 4to.

1. Atlas of facsimiles in collotype.
2. Lithographed hand copies of the earlier documents.
3. Key-list, translations, commentaries, and indexes. 3 guineas *net*.

This is something more than a catalogue. It includes collotype facsimiles of the whole of the documents, with transliterations, translations, besides introductions, very full notes, and a glossary of Demotic, representing the most important contribution to the study of Demotic hitherto published. The documents dealt with in these volumes cover a period from Psammetichus, one of the latest native kings, about 640 B.C., down to the Roman Emperor Claudius, A.D. 43.

**CATALOGUE OF THE GREEK PAPYRI IN THE JOHN RYLANDS LIBRARY.** By Arthur S. Hunt. Vol. i: Literary texts (Nos. 1-61). 1911. 4to, pp. xii. 204. 10 plates of facsimiles in collotype. 1 guinea *net*.

The texts are reproduced in *extenso*. The collection comprises many interesting Biblical, liturgical, and classical papyri, ranging from the third century B.C. to the sixth century A.D. Included are probably the earliest known text of the "Nicene Creed," and one of the earliest known vellum codices, containing a considerable fragment of the "Odyssey," possibly of the third century A.D.

**CATALOGUE OF THE GREEK PAPYRI IN THE JOHN RYLANDS LIBRARY.** By Arthur S. Hunt. Vols. 2 and 3: Non-literary documents. [In Preparation.]

## SHERATT & HUGHES

**THE JOHN RYLANDS FACSIMILES:** A series of reproductions of unique and rare books in the possession of the John Rylands Library.

- The volumes consist of minutely accurate facsimile productions of the works selected, preceded by short bibliographical introductions.

The issue of each work is limited to five hundred copies, of which three hundred are offered for sale, at a price calculated to cover the cost of reproduction.

1. **PROPOSITIO JOHANNIS RUSSELL**, printed by William Caxton, circa A.D. 1476. Reproduced from the copy preserved in the John Rylands Library. . . . With an introduction by Henry Guppy. 1909. 8vo, pp. 36, 8. 3s. 6d. net.

This "proposition" is an oration, pronounced by John Russell, Garter King of Arms, on the investiture of Charles, Duke of Burgundy, with the Order of the Garter, in February, 1469, at Ghent. The tract consists of four printed leaves, without title-page, printer's name, date, or place of printing. It is printed in the type which is known as Caxton's type "No. 2," but whether printed at Bruges or at Westminster has yet to be determined.

For many years the copy now in the John Rylands Library was considered to be unique. Indeed, until the year 1807 it lay buried and unnoticed in the heart of a volume of manuscripts, with which it had evidently been bound up by mistake. Since then, another copy has been discovered in the library at Holkham Hall, the seat of the Earl of Leicester.

2. **A BOOKE IN ENGLISH METRE**, of the Great Marchaunt man called "Dives Pragmaticus". . . . 1563. Reproduced in facsimile from the copy in the John Rylands Library. With an introduction by Percy E. Newbery; and remarks on the vocabulary and dialect, with a glossary by Henry C. Wyld. 1910. 4to, pp. xxxvii. 16s. net.

The tract here reproduced is believed to be the sole surviving copy of a quaint little primer which had the laudable object of instructing the young in the names of trades, professions, ranks, and common objects of daily life in their own tongue. The lists are rhymed, and therefore easy to commit to memory, and they are pervaded by a certain vein of humour.

3. **A LITIL BOKE** the whiche traytieth and reherced many gode thinges necessaries for the . . . Pestilence . . . made by the . . . Bisshop of Arusiens. . . [London], [1485?]. Reproduced in facsimile from the copy in the John Rylands Library. With an introduction by Guthrie Vine. 1910. 4to, pp. xxxvi. 18s. 5s. net.

Of this little tract, consisting of nine leaves, written by Benedict Kanuti, Bishop of Västerås, three separate editions are known, but only one copy of each, and an odd leaf are known to have survived.

There is no indication in any edition of the place of printing, date, or name of printer, but they are all printed in one of the four type employed by William de Machlinia, who printed first in partnership with John Lettoun, and afterwards alone, in the city of London, at the time when William Caxton was at the most active period of his career at Westminster.

**THE ELLESMERE CHAUCER:** Reproduced in Facsimile. Price £50 net.

**TRANSACTIONS OF THE INTERNATIONAL UNION FOR CO-OPERATION IN SOLAR RESEARCH** (Vol. i., First and Second Conferences). Demy 8vo, 260 pp. and plate. 7s. 6d. net.

**TRANSACTIONS OF THE INTERNATIONAL UNION FOR CO-OPERATION IN SOLAR RESEARCH** (Vol. ii., Third Conference.) Demy 8vo. 7s. 6d. net.

**SHERRATT & HUGHES.**

**Publishers to the Victoria University of Manchester**

**Manchester: 34 Cross Street**

**London: 33 Soho Square W.**







19816

ROYAL ASIATIC SOCIETY OF BENGAL LIBRARY

Author *Manchester University.*

Title *Outline of educational courses.*

Call No. *37842*  
*M2680*

Date of Issue	Issued to	Date of Return

Library of the:  
**ROYAL ASIATIC SOCIETY OF BENGAL**  
Call No. *37842.M2680.*  
Accession No. *19816.....*